

HDMA-4000

User Guide

Engineered by Canopus Co., Ltd.

Copyright Regulations

It is illegal for anyone to violate any of the rights provided by the copyright laws to the owner of copyright, except for fair use (mainly private noncommercial use). Also, in certain cases copying is prohibited with no exceptions. In no event shall Canopus be liable for any direct or indirect damages whatsoever arising from the use of captured materials.

Warranty

Your HDMA-4000 is covered by a limited warranty when you register your Canopus product. This warranty is for a period of one year from the date of purchase from Canopus or an authorized Canopus agent. This warranty applies only to the original purchaser of the Canopus product and is not transferable. Canopus Co., Ltd warrants that for this period the product will be in good working order. Should our product fail to be in good working order, Canopus will, at its option, repair or replace it at no additional charge, provided that the product has not been subjected to misuse, abuse or non-Canopus authorized alterations, modifications and/or repair. Proof of purchase is required to validate your warranty.

Canopus is not responsible for any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, this product. This includes damage to property and, to the extent permitted by law, damages for personal injury. This warranty is in lieu of all other warranties of merchantability and fitness for a particular purpose.

Cautions

Please observe the following cautions when using this product. If you have any questions regarding the method of usage, the descriptions herein, or any other concerns, please contact the local Canopus office or distributor.

WARNING

The following conditions indicate the potential for serious bodily injury or loss of life.

Health precautions

In rare cases, flashing lights or stimulation from the bright light of a monitor display may trigger temporary epileptic seizures or loss of consciousness. It is believed that even individuals whom have never experienced such symptoms may be susceptible. If you or close relatives have experienced any of these symptoms, consult a doctor before using this product.

Do not use in environments requiring a high degree of reliability and safety

This product is not to be used in medical devices or life support systems. The characteristics of this product are not suited for use with such systems.

Protect against static electricity

An electrostatic discharge may damage components of this product. Do not directly touch any of the connectors or component surfaces.

Static electricity can be generated on clothing and on people. Before handling the product, discharge static electricity from your body by touching a grounded metal surface.

Do not disassemble

Do not remove the cover or modify the HDMA-4000. Fire, electric shock or malfunction may result. For internal inspection or repair, please contact your system integrator or Canopus directly.

Do not operate at other than the specified voltage

Do not operate at other than the specified voltages of AC 100-240V. Operation at other than the rated voltage may result in fire or malfunction.

Do not operate with other than the specified power supply

Do not operate with other than the specified AC adapter, or with a car power supply. Such operation may result in fire or malfunction.

Handle the AC adapter cord carefully

Do not place heavy objects on top of the cord, or place it near hot objects. Doing so may damage the cord and result in fire, electrical shock, or malfunction. Altering the cord, or excessively bending or pulling the cord may result in fire or electrical shock. If the cord is damaged, please contact your local retail outlet or Canopus directly.

* Replacement of damaged parts, unless defective due to manufacturing, will be charged at actual cost plus handling fees.

Do not use the product in a dusty or humid environment

It may cause a short-circuit or a build-up of heat, resulting in fire or electric shock.

Do not let foreign matters enter the inside of the product

If water or any foreign matter enters the inside of the product, it may cause fire or electric shock. In the case where water or foreign matter is allowed to enter the product, turn the power OFF and pull out the power cable from the receptacle.

Do not use the product when you hear thunder

Do not touch the product body or its plug on such occasions. It may result in electric shock.

Stop using the product when it is smoking

Do not use the product in an abnormal condition like when it is smoking or emitting an odor.

It may result in fire or malfunction of the product. If any anomaly is found, turn OFF the power of the product, disconnect the power cable, making sure that the product is not smoking any more.

Do not use the product in a damaged condition

Do not drop the product nor use the product with its cover broken.

It may result in fire or malfunction of the product. In case the product is damaged, turn OFF the power of the product and pull out the power cable from the receptacle.

Do not touch AC adapter with wet hands

Do not disconnect or plug in the AC adapter when your hands are wet. Contact with water may result in electric shock, fire or damage.

Do not setup in an area that becomes hot

Do not setup in an area exposed to direct sunlight or near a heating apparatus. The heat can accumulate, causing burns, fire or damage. Also, the unit may become deformed or change color.

CAUTION

The following conditions indicate the potential for bodily harm, damage to hardware or loss of data.

Do not pull AC adapter cord when disconnecting from electrical outlet

When disconnecting the AC adapter cord, pull on the plug, not the cord itself. Pulling on the cord can damage the cord and may result in fire or electric shock.

Do not setup other than the Described method

Do not setup in a manner other than prescribed. Do not use while wrapped in cloth or plastic. Heat can accumulate, causing burns, fire or damage.

If product will not be used for an extended period

If this product will not be used for an extended period of time, disconnect the AC adapter from the electrical outlet.

Do not place the product on an unstable place

Do not place the product on an unstable table or slanted surface. The product may fall from it, resulting in injuries or malfunction of the product.

Turn OFF the power when cleaning the product

When making connections with the product or cleaning the product, be sure to disconnect the power plug beforehand. Failure to do so may result in electric shock or malfunction of the product. When cleaning the product, do not use volatile solvents such as thinner.

Route the cables properly

Route the power cable and AV cables properly. If they catch on something, it may result in injuries or malfunction of the product.

Precautions for use of AC adapter

The supplied AC adapter and power cord are for exclusive use of this product. Do not operate the product with other AC adapter or in other combinations.

Lower The Volume Of The Audio Equipment

Please lower your audio equipment speaker level that is connected with the HDMA-4000 when you turn the power of the HDMA-4000 ON/OFF. You may hear a loud noise when you turn the power ON/OFF.

Do not cover the HDMA-4000 ventilation

Do not use the HDMA-4000 covered with a cloth or in an ill-ventilated room. Covering the vent may cause heat inside of the product resulting in fire or product malfunction.

CE Notice

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Declaration of Conformity

According to FCC Part 15

Responsible Party Name: Canopus Corporation

Address: 711 Charcot Avenue, San Jose, CA 95131

Telephone: 408-954-4500

Declares that product Model: HDMA-4000

Complies with Part 15 of the FCC Rules.

Product Notes

1. Unauthorized copying of a portion or the entirety of this product is prohibited.
2. The description and specifications of this product are subject to future change without notice.
3. The description of this product has been prepared to be as complete as possible. If the reader is aware of any questionable points, errors or omissions, please contact Canopus.
4. The company assumes no liability for the results of practical application, regardless of item (3) above.
5. Regardless of whether negligence occurs during usage, the company assumes no liability, even if there is a claim, for extraordinary, incidental or derivative loss, including the loss of profits, that arise during practical application of this product.
6. The analysis, reverse engineering, decompiling and disassembling of the software, hardware or manuals that accompany this product, and all other related products including miscellaneous supplemental items, are prohibited.
7. Canopus, as written in both English and Japanese, and its logo are registered trademarks of Canopus Co., Ltd.
8. BX35F and BX50F are trademarks or registered trademarks of OMRON Corporation.
9. Pioneer and its logo are registered trademarks of Pioneer Corporation.
10. Microsoft and Windows are registered trademarks of Microsoft Corporation, USA. Other product names and the like are trademarks or registered trademarks of the respective companies.

About the Documentation

This document is the HDMA-4000 User Guide.

Information not listed in this document may be listed elsewhere.

In cases where there is a difference between a description in this document and an actual operation method, the actual operation method takes precedence.

In this manual, the unique features of the HDMA-4000 and the common features of the HDMA-4000 and the HDMA-4000Sync are collectively described as those of the HDMA-4000, while the unique features of the HDMA-4000Sync are described as those of the HDMA-4000Sync.

The Microsoft® Windows® XP operating system is referred to as "Windows XP."

This document is written for users capable of performing basic PC operations. If there is no special description of an operation, perform that operation in the same manner as a general PC operation.

To simplify the descriptions, the actual product may differ from the illustrations and screenshots.

Firmware version

The descriptions of the operation in this manual are based on those of the firmware version 2.0 or later.

Table of Contents

Chapter 1

Introduction	12
Notes regarding usage	12
Verify package contents	12
Canopus website.....	13
GNU General Public License	13
Replacement of the HDD and fan.....	13
HDMA-4000	14
Overview	14
Features of the HDMA-4000/HDMA-4000Sync	15
Features of HDMA-4000Sync	15

Chapter 2

HDMA-4000 Part Names	18
HDMA-4000/HDMA-4000Sync Front Panel	18
HDMA-4000 Rear Panel	20
HDMA-4000Sync Rear Panel	21
Remote Controller	22
Ferrite core	23
Connecting the HDMA-4000	24
Contents of the product CD	26

Chapter 3

HDMA Scheduler Overview	28
What's HDMA Scheduler?	28
Installation.....	29
Installing HDMA Scheduler	29
Uninstallation	31
Uninstalling HDMA Scheduler.....	31
Using HDMA Scheduler	33

Starting HDMA Scheduler	33
HDMA Scheduler Main Screen	34
Menu bar	35
Creating a schedule	40
Exporting a schedule	44
Saving a schedule	45
Loading a schedule	46

Chapter 4

Startup and shutdown	48
Startup	48
Shutdown	49
WOL (Wake On LAN)	50

Reference 1

Contents update	52
Contents update via a network	52
Contents update via USB	55
Description of the contents update control file	56
Description examples	57

Reference 2

How to create contents	60
Output parameter settings	60
How to create a schedule	62
Description of schedule text	62
Operation when the schedule file is invalid	65
Examples of a schedule	66

Reference 3

Serial control	72
Command descriptions (Pioneer LD/DVD mode)	73
Command descriptions (HDMA-4000 Ver.1.X mode)	82

Error codes.....	83
How to use serial control.....	84
Managing a content file	85

Reference 4

Setup using the front panel.....	90
Settings menu	90
Setup using Web browser	100
Accessing the HDMA-4000 Setup page.....	100
Preparation and starting the Web console	100
HDMA-4000 Setup Page	102
Updating firmware.....	118
How to update.....	118
Maintenance Mode.....	119
Maintenance Mode overview.....	119
Firmware recovery.....	121
If you have forgotten the user name or the password.....	123

Reference 5

Sync playback using the HDMA-4000Sync.....	126
Connecting devices	126
HDMA-4000Sync settings.....	127
Contents	128
Playback	128
Available Combination of HDMA-4000Sync units for external sync	129

Appendix

Hardware Specifications	132
Remote Control ID setting.....	137
Connecting to a UPS	138



Chapter 1

This chapter describes the things to check before setting up HDMA-4000.

- Introduction
- HDMA-4000

Introduction

Notes regarding usage

IN NO EVENT SHALL CANOPUS BE LIABLE TO USER OR ANY OTHER PARTY FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING UNDER THE USE OF THIS PRODUCT WHETHER UNDER THEORY OF CONTRACT, TORT, INDEMNITY, PRODUCT LIABILITY OR OTHERWISE.

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN, CANOPUS MAKES NO REPRESENTATIONS, EXTENDS NO WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE, AND ASSUMES NO RESPONSIBILITY WITH RESPECT TO THE USE OF THIS PRODUCT HEREUNDER. FURTHER, CANOPUS MAKES NO WARRANTIES OF PROPER OPERATION OF THIS PRODUCT UNDER OTHER USAGE ENVIRONMENT THAN THAT RECOMMENDED BY CANOPUS FOR THIS PRODUCT.

Unauthorized recording of copyrighted television programmes, compact discs, digital versatile discs, video tapes and other materials may infringe the right of copyright owners and be contrary to copyrights laws.

Verify package contents

Please verify that the following accompanying components are included in the HDMA-4000 package. Product packaging is implemented with stringent quality assurance measures.

- **HDMA-4000 Unit**
- **AC adapter & cable**
- **BNC-RCA conversion connector (x3)**
- **Remote Controller**
- **AAA battery (x2)**
- **Ferrite core (x2)**
- **CD-ROM**
- **Manual**

Canopus website

Including HDMA-4000, the latest company information is announced at our website <http://www.canopus.com>. The latest drivers, utilities, product manuals, FAQs, etc. are also available, from our website.

GNU General Public License

This product utilizes the free software that uses GNU General Public License (hereinafter "GPL") or GNU Lesser General Public License (hereinafter "LGPL") in a part of the software.

Replacement of the HDD and fan

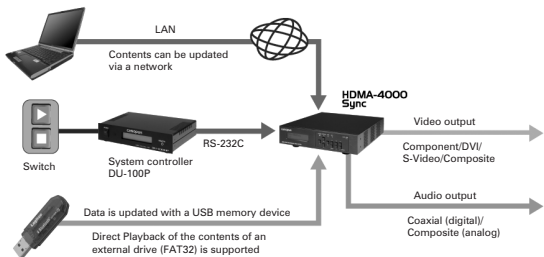
While their lifespan varies according to the usage environment, the HDD and fan are devices that must be periodically replaced. For trouble-free use of the HDMA-4000, replace the internal HDD and fan after each year of operation. To replace these items, contact your local retailer or the organization that installed the system.

HDMA-4000

Overview

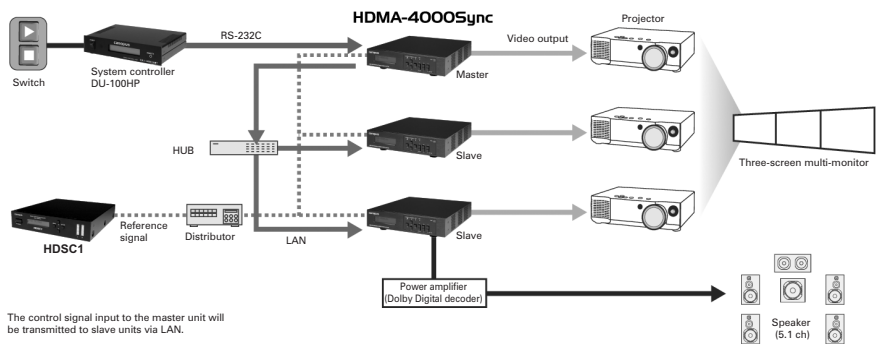
The HDMA-4000 is a device that plays HD content stored on its internal HDD or on a network. Contents can easily be updated from a network or a memory card. Scheduled playback and remote serial control are also supported. By using a memory drive instead of the internal HDD, a stable playback environment with no moving parts is available.

■An example of the HDMA-4000 unit connection.



In addition to the features of the HDMA-4000, the HDMA-4000Sync has a REF IN (External reference signal input) port, enabling playback in external sync mode and synchronization of multiple HDMA-4000 units.

■An example of synchronized playback with the HDMA-4000Sync.



Features of the HDMA-4000/HDMA-4000Sync

- Superior cost performance.

The HDMA-4000 has ample functions for an HD playback system and provides superior cost performance.

- Various customized systems can be established.

There are many functions that can be used for various purposes including an auto-playback system using the scheduler, or a system from which contents can be played by using touch-panel operations.

- Provides a total solution - from editing to playback.

Capture video from a HDV camera onto the timeline of the Canopus HD. Use the canopus HD editing system to capture and export the edited video as a MPEG file. When the HDMA-4000 is connected via a network, the workflow from editing to playback can be consolidated.

- Supports DVD/LD player compatible command controls

Commands compatible with the Pioneer DVD/LD player are supported. The HDMA-4000 can replace DVD/LD players without any loss of functionality.

- Supported files

MPEG2 transport stream *

MPEG2 program stream *

* MPEG1 Audio Layer2, AAC (LPCM output) and AC3 (SPDIF output only) audio are supported.

Features of HDMA-4000Sync

- Supports playback in external sync mode

With a BB/3-value sync signal input, the video output from the HDMA-4000Sync can be synchronized with the reference signal.

- Supports synchronization of multiple units

With HDMA-4000 master and HDMA-4000 slave units specified on a network, the HDMA-4000 master unit can be operated to synchronize the playback timing of the HDMA-4000 slave unit.



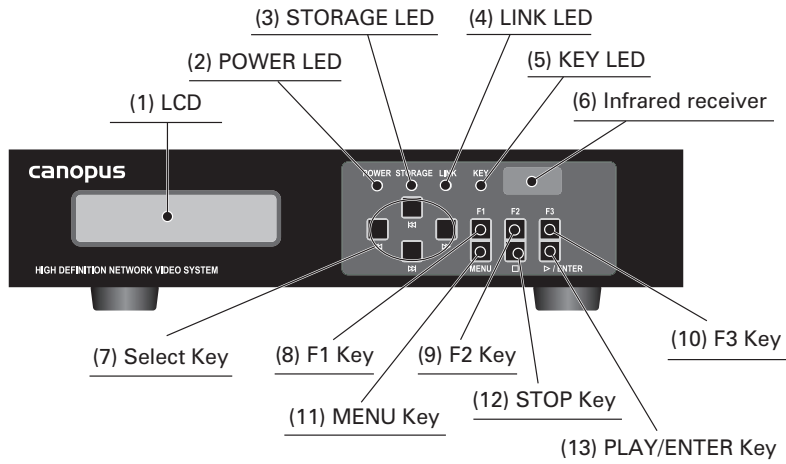
Chapter 2

This chapter describes the functions of the HDMA-4000.

- HDMA-4000 Part Names
- Connecting the HDMA-4000
- Contents of the product CD

HDMA-4000 Part Names

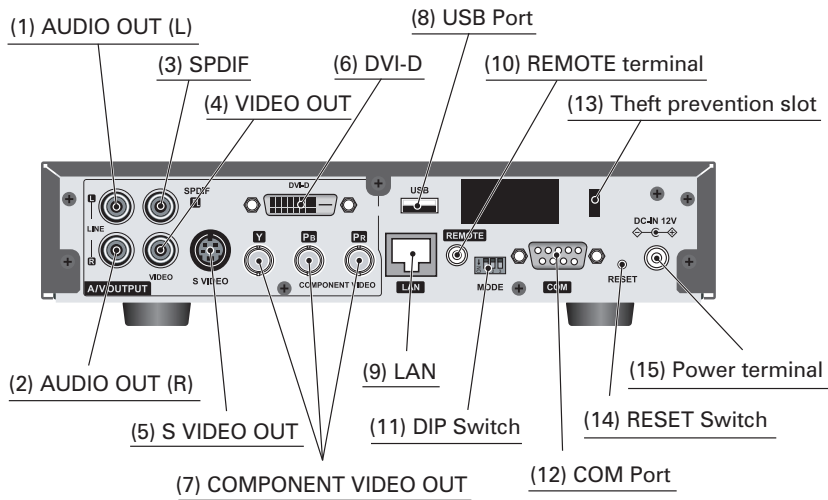
HDMA-4000/HDMA-4000Sync Front Panel



- (1) LCD Displays the current operation status and setting menus.
- (2) POWER LED Lights when HDMA-4000/HDMA-4000Sync operates.
 - Unlit Power is not on.
 - Lit Operating
 - Blinking Starting up/Shutting down
- (3) STORAGE LED Lights up when the internal HDD is being accessed.
- (4) LINK LED Lights when HDMA-4000 and/or HDMA-4000Sync is connected to a network (via a hub or other such device).
 - Unlit Not connected to a network device (Switching Hub, etc.)
 - Lit Connected to a network device, but not sending/receiving data.
 - Blinking Connected to a network device, and sending/receiving data.
- (5) KEY LED Lights when receiving a key signal from an infrared remote controller or an external remote terminal.
- (6) Infrared receiver.....Built in infrared receiver for remote controllers.

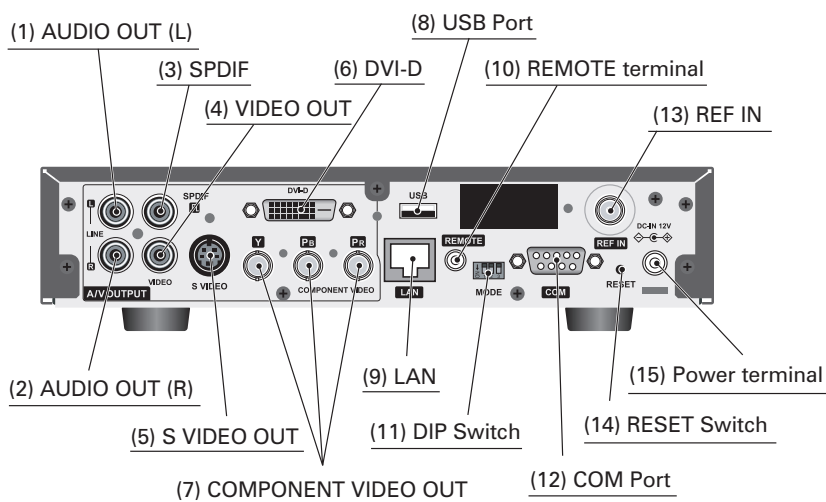
- (7) Select Key When multiple files are registered in the current schedule file, use the **⏮** key to play the next file. When a file is being played repeatedly, playback jumps to the top of the file. In the settings menu, press the **⏮** / **⏭** keys to select items, the **⏪** key to cancel or the **⏩** key to accept the changed settings.
- (8) F1 Key.....Depending on the channel names defined in the schedule file, the content corresponding to KEY 1 will be played.
- (9) F2 Key.....Depending on the channel names defined in the schedule file, the content corresponding to KEY 2 will be played.
- (10) F3 Key.....Depending on the channel names defined in the schedule file, the content corresponding to KEY 3 will be played.
- (11) MENU Key Switches between the main screen and the setting menus on the LCD.
- (12) STOP Key Stops playback. Used as the Cancel key in the setting menus.
- (13) PLAY/ENTER Key Starts playing the content. Used as the Enter key in the setting menus.

HDMA-4000 Rear Panel



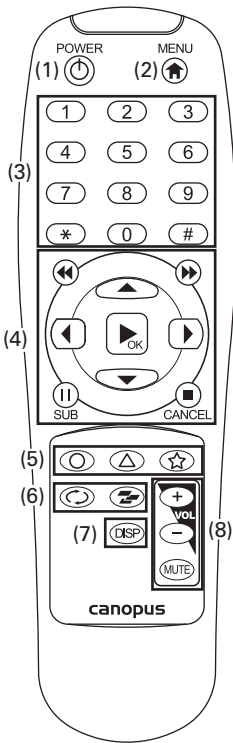
- (1) AUDIO OUT (L)..... Audio output (left).
- (2) AUDIO OUT (R) Audio output (right).
- (3) SPDIF..... Coaxial digital audio output.
- (4) VIDEO OUT Composite video signal output.
- (5) S VIDEO OUT S-video signal output.
- (6) DVI-D DVI-D terminal
- (7) COMPONENT VIDEO OUT Component video (Y/Pb/Pr) signal output.
- (8) USB Port..... Port for connecting a USB device.
- (9) LAN..... Port for connecting an Ethernet cable.
- (10) REMOTE terminal Remote control terminal.
- (11) DIP Switch Used to enable WOL (See Chapter 4).
- (12) COM Port..... Used for serial control (See Reference 3).
- (13) Theft prevention slot Slot for theft prevention devices such as wire or cable locks.
- (14) RESET Switch Used in emergencies. Do not use to reset.
- (15) Power terminal..... Connects to the accompanying AC adapter. Never connect anything here other than the accompanying AC adapter.

HDMA-4000Sync Rear Panel



- (1) AUDIO OUT (L)..... Audio output (left).
- (2) AUDIO OUT (R) Audio output (right).
- (3) SPDIF..... Coaxial digital audio output.
- (4) VIDEO OUT Composite video signal output.
- (5) S VIDEO OUT S-video signal output.
- (6) DVI-D DVI-D terminal
- (7) COMPONENT VIDEO OUT Component video (Y/Pb/Pr) signal output.
- (8) USB Port..... Port for connecting a USB device.
- (9) LAN..... Port for connecting an Ethernet cable.
- (10) REMOTE terminal Remote control terminal.
- (11) DIP Switch..... Used to enable WOL (See Chapter 4).
- (12) COM Port..... Used for serial control (See Reference 3).
- (13) REF IN..... Reference input (BNC) port..
- (14) RESET Switch Used in emergencies. Do not use to reset.
- (15) Power terminal..... Connects to the accompanying AC adapter.
Never connect anything here other than the accompanying AC adapter.

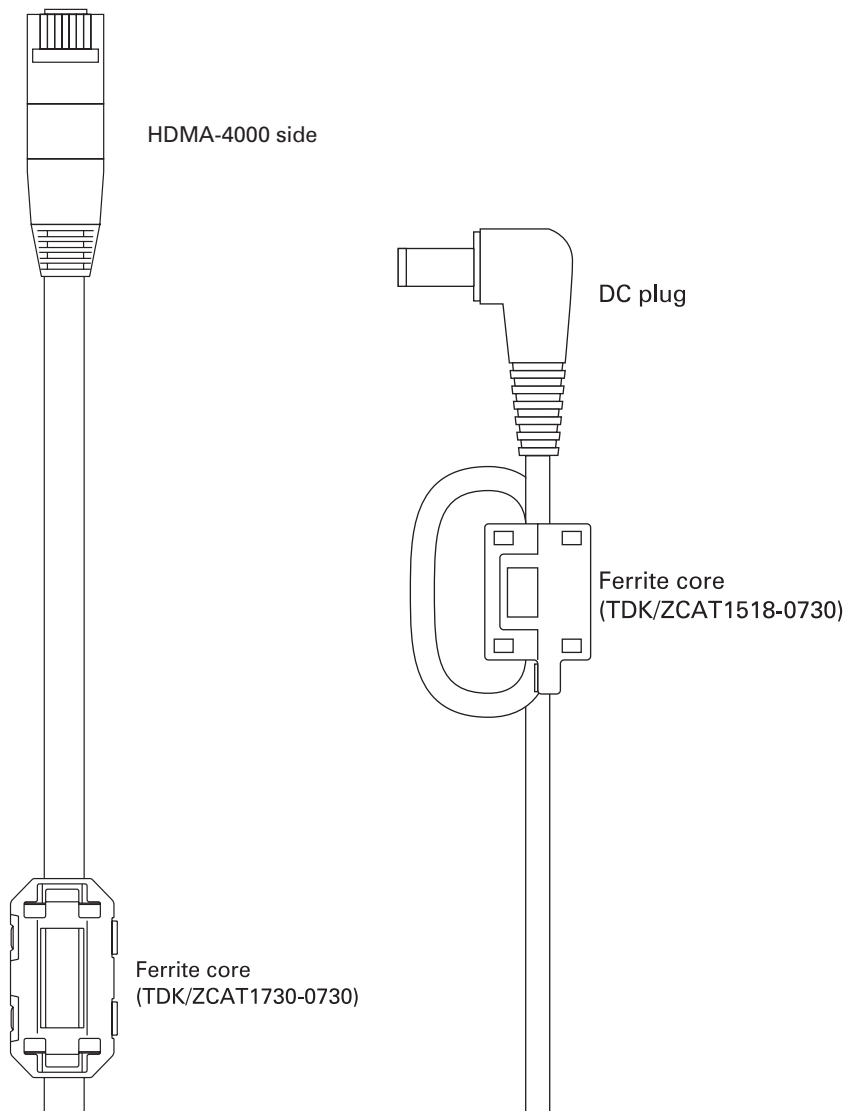
Remote Controller



- (1) POWER button Turns power on/off.
- (2) MENU button Executes the default channel defined in the schedule file.
- (3) Numeric buttons Plays the corresponding content defined as a channel in the schedule file.
*, # buttons are not used.
- (4) Navigation buttons With multiple files registered in the current schedule file, use the button to play the next file. When a file is being played repeatedly, playback jumps to the top of the file.
 button:
Pauses the playing content.
 button:
Stops the playback.
 button:
Plays content.
Cancels the state of pause/stop.
 / button:
Jumps backward/forward by 1/10 of the content size.
- (5) Function button.....Not used.
- (6) Play mode button Not used.
- (7) Display button.....Not used.
- (8) Volume button Use to adjust volume.

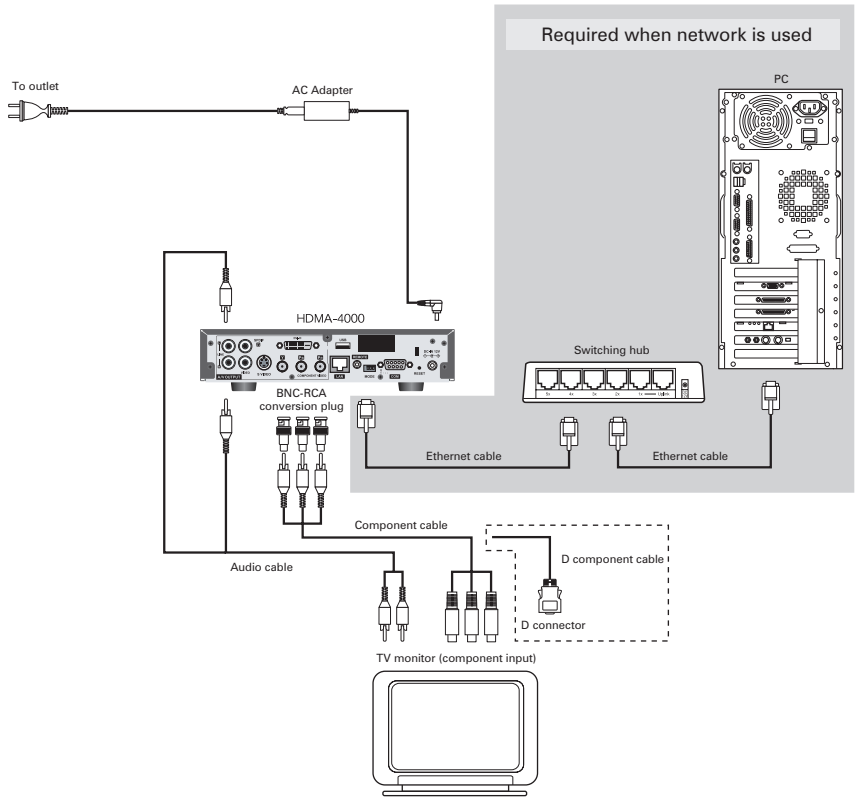
Ferrite core

Attach the ferrite core to the Ethernet and AC cable in the position shown below.



Connecting the HDMA-4000

Connect the HDMA-4000 and the peripherals, referring to the diagram below.



Note

Connecting the AC adapter will turn on the HDMA-4000 and will also start connecting to the network with certain settings. Therefore, connect the AC adapter after ensuring that all the other cables are connected properly. When the network cable is connected to the HDMA-4000 after the hardware is turned on, it may take some time before a network connection is established. (Even when a network connection has not been established, the HDMA-4000 is turned on and playback will start).

Note

For more information on the video settings, see "Setup using the front panel" or "Setup using Web browser" in Reference 4 and modify the settings to suit your TV monitor.

Note

For more information on network settings, see "Setup using the front panel" or "Setup using Web browser" in Reference 4 and confirm that the HDMA-4000 Setup page is displayed on the PC monitor.

Contents of the product CD

- **Control files**

Representative control files for updating contents to be used on the HDMA-4000.

- **Schedule files**

Schedule file samples to be used on the HDMA-4000.

- **Sample movies**

Movie samples that can be played on the HDMA-4000.

- **HDMA Scheduler**

Software to register/create/output a video file stored on a PC as schedule contents for the HDMA-4000.

- **HDMA-4000/HDMA-4000Sync firmware**

Firmware used in the HDMA-4000/HDMA-4000Sync.



Chapter 3

How to use the HDMA Scheduler to update the contents used for scheduled playback is described in this chapter. (For information on how to update the contents with serial controls, see the Reference 1.)

- HDMA Scheduler Overview
- Installation
- Uninstallation
- Using HDMA Scheduler

* Updating contents

The HDMA-4000 supports scheduled playback of contents and playback via serial controls. Contents are managed separately for scheduled playback and for serial controls.

HDMA Scheduler Overview

What's HDMA Scheduler?

HDMA Scheduler is a software program that registers video files stored on your computer as scheduled contents. You will also be able to save and export schedule files.

Operation environment

HDMA Scheduler operation is not necessarily guaranteed even in the environments satisfying all conditions below.

- **OS**
Microsoft Windows XP Home Edition/Professional Service Pack2 or later
- **CPU**
Intel Pentium 4 2.4GHz or higher
- **Memory**
256MB or larger
- **Graphics**
Support for resolution of higher than 1024 x 768 dot/32 bit
- **Network interface**
Ethernet 100BASE-TX or better (To update contents via Network)
- **CD-ROM**
Required for optional software installation
- **USB**
One free USB 1.1 port or higher (To use USB memory device)

Note

In order to enable the file reference function of HDMA-4000, open Internet Explorer, [Internet Option], [Connections], [LAN settings], and change the IP address so that Internet Explorer can access the HDMA-4000 Web console.

Installation

Installing HDMA Scheduler

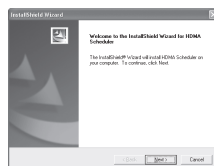
- * Installation requires that the user be authorized as the administrator (such as the PC administrator).
- * Before starting installation close all applications running in the task tray.

- Put the HDMA Scheduler CD-ROM in your CD-ROM drive, and double-click [setup.exe].
→ "InstallShield Wizard" dialog box appears

Note

Do not remove the CD-ROM until installation is completed.

- Click [Next].



- The license agreement is displayed. Click [Yes] to agree to the terms of the license agreement.

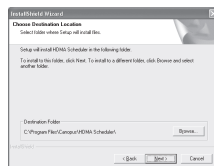
* If you don't accept the terms, click [No], which will cancel the installation.

* If you do not agree to the license agreement you cannot use this product.



- Click [Next].

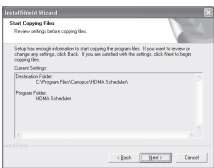
* Click [Browse] and select the folder or type in a different folder name to install in another folder.



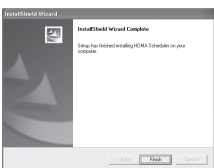
5 Click [Next].



6 Click [Next].
→ Installation of HDMA Scheduler starts.



7 Click [Finish].
→ Installation of HDMA Scheduler is completed.



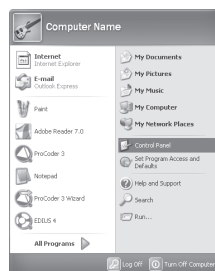
Uninstallation

Uninstalling HDMA Scheduler

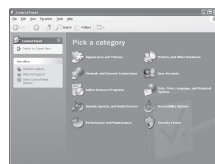
If you don't need to use HDMA Scheduler anymore, you can uninstall it.

- * Uninstallation requires that the user be authorized as the administrator (such as a PC administrator).
- * Before starting uninstallation, close all the other applications running in the task tray.

- 1 Click select [Control Panel] from [Start] menu.



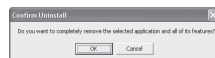
- 2 Click [Add or Remove Programs].



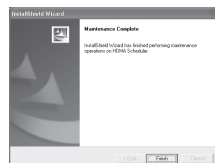
- 3 Select [HDMA Scheduler] and click [Change/Remove].



- 4 Click [OK].
→ Uninstallation starts.



- 5 Click [Finish].



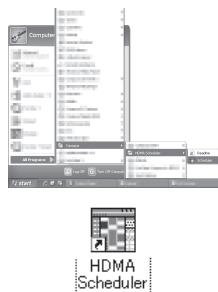
Using HDMA Scheduler

Starting HDMA Scheduler

1

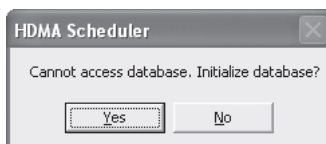
From [Start] menu, select [All programs], [Canopus], [HDMA Scheduler] and click [Scheduler]. Otherwise, double-click the [HDMA Scheduler] icon on the desktop.

→ [HDMA Scheduler] will start.

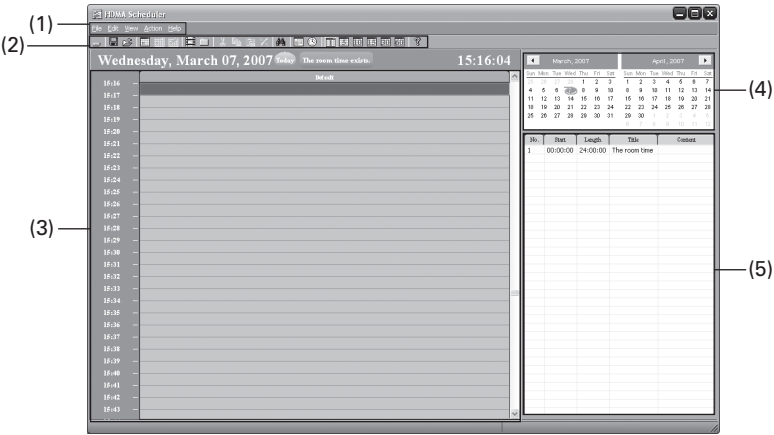


Note

The first time you run the HDMA Scheduler an introductory dialog will be displayed. Click [Yes].



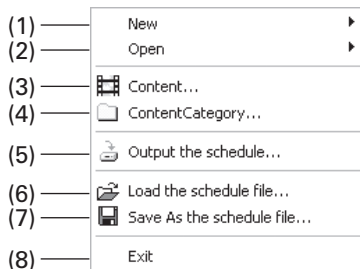
HDMA Scheduler Main Screen



- (1) **Menu bar**
You can configure/operate HDMA Scheduler. (See the pages follow).
- (2) **Tool bar**
Displays the tools providing useful functions.
- (3) **Channel**
Displays/Edits schedules.
- (4) **Calendar bar**
Displays the calendar.
- (5) **Status bar**
Displays the contents.

Menu bar

[File] menu

**(1) New**

- Schedule

Opens the [Schedule Settings] dialog. You can set a schedule for the currently selected channel.

- Channel

Opens the [Channel Settings] dialog. You can create a new channel.

(2) Open

Opens the selected item/channel.

(3) Content

Opens the [Content List] dialog.

(4) ContentCategory

Opens the [ContentCategory List] dialog

(5) Output the schedule

Opens the [Output schedule] dialog.

(6) Load the schedule file

Loads a schedule file (*.xml).

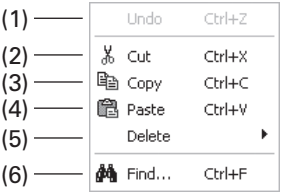
(7) Save As the schedule file

Saves a schedule file (*.xml).

(8) Exit

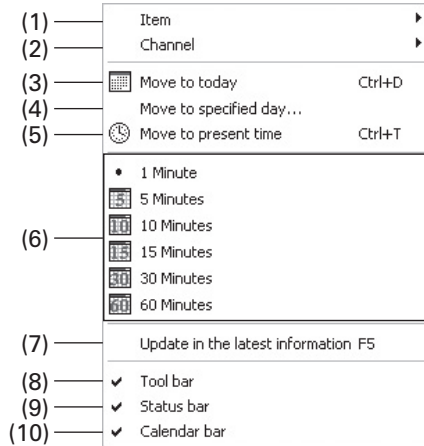
Closes the HDMA Scheduler.

[Edit] menu



- (1) **Undo**
Undoes the last operation.
- (2) **Cut**
Cuts the selected item.
- (3) **Copy**
Copies the selected item to the clipboard.
- (4) **Paste**
Pastes the item stored in the clipboard.
- (5) **Delete**
Deletes the selected item.
- (6) **Find**
Searches a content.

[View] menu

**(1) Item**

Specifies how the items are displayed (Only the title/Details).

(2) Channel

Specifies the channel width (Fixation/Variablenass).

(3) Move to today

Jumps to today's calendar.

(4) Move to specified day

Opens the [Move To Specified Date] dialog, from which you can jump to a specified date.

(5) Move to present time

Jumps to a specified time.

(6) Grid scale

Switches the timeline grids of the channel to the specified scale.

(7) Update in the latest information

Updates and displays the current information.

(8) Tool bar

Shows/Hides the tool bar.

(9) Status bar

Shows/Hides the status bar.

(10) Calendar bar

Shows/Hides the calendar bar.

[Action] menu

(1)	 New Schedule... Ctrl+N
(2)	Copy the schedule of the day...
(3)	Copy the schedule selected by the time zone...
(4)	Move all items...
(5)	Delete the schedule of the day...
(6)	Delete the schedule selected by the time zone(N)...
(7)	New Channel...

- (1) **New Schedule**
Opens the [Schedule Settings] dialog. You can set a schedule on the currently selected channel.
- (2) **Copy the schedule of the day**
Opens the [Copy the schedule of the day] dialog. You can copy a schedule (date, channel) for a day.
- (3) **Copy the schedule selected by the time zone**
Opens the [Copy the schedule selected by the time zone] dialog. You can copy a schedule setting (time).
- (4) **Move all items**
Opens the [Move All Items] dialog. You can move a schedule to a specified time.
- (5) **Delete the schedule of the day**
Opens the [Delete the schedule of the day] dialog. You can delete schedules of a day by specifying a new date.
- (6) **Delete the schedule selected by the time zone**
Opens the [Delete the schedule selected by the time zone] dialog. You can delete schedules set in a period of time by specifying the period.
- (7) **New Channel**
Opens the [Channel Settings] dialog. You can create a new channel.

[Help] menu

(1) —  About Scheduler...

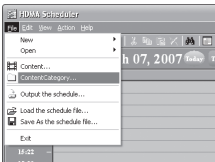
(1) About Scheduler

Displays the HDMA Scheduler version.

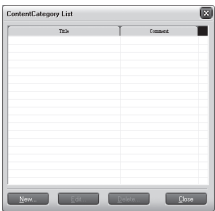
Creating a schedule

You can create a schedule using the HDMA Scheduler.

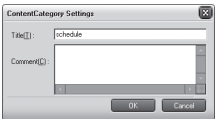
- 1
- On a channel of the HDMA Scheduler main menu, select a period in which you want to perform a scheduled playback. Then select [File] menu, [ContentCategory].
→ The [ContentCategory List] dialog opens.



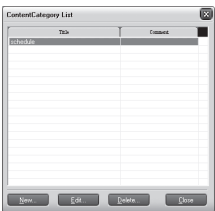
- 2
- Click [New].
→ The [ContentCategory Settings] dialog opens.



- 3
- Fill the [Title] field and [Comment] field (if necessary), and then click [OK].
→ The [ContentCategory Settings] dialog is closed.



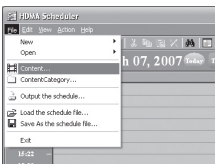
- 4
- A category is registered to the [ContentCategory List] dialog.
Click [Close].
→ The [ContentCategory List] dialog is closed.



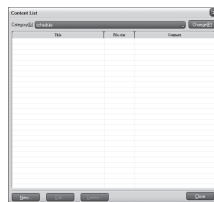
Note

Repeat steps 1 to 4 for each of the number of contents you want to register.

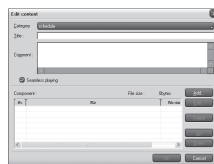
- 5
- Select [File] menu, [Content].
→ The [Content List] dialog opens.



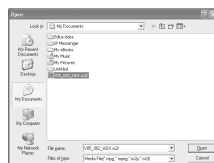
- 6** Select a content category created with Steps 1 to 4, and click [New].
→ The [Edit content] dialog opens.



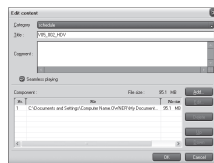
- 7** Click [Add].
→ The [Open] dialog opens.



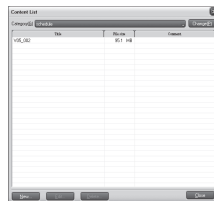
- 8** Select a content to register, and click [Open].
→ The [Open] dialog is closed.



- 9** Click [OK].
→ The [Edit content] dialog is closed.



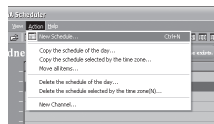
- 10** The content has been registered to the list. Click [Close].
→ The [Content List] dialog is closed.



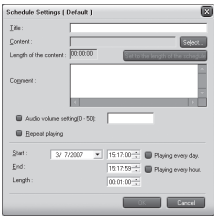
Note

Repeat steps 6 to 9 for each of the number of contents you want to register.

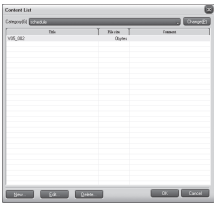
- 11** Select [Action] menu, [New Schedule].
→ The [Schedule Settings] dialog opens.



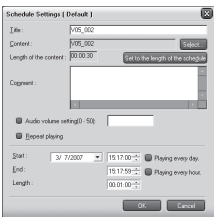
12 Click [Select].
→ The [Content List] dialog opens.



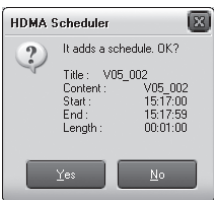
13 Select a content to register as a schedule, and click [OK].
→ The [Content List] dialog is closed.



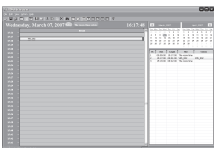
14 The content to be played according to the schedule will be registered in the [Schedule Settings] dialog. Review the settings including [Start] and [End] and click [OK].
→ The [Schedule Settings] dialog is closed.



15 Review the settings and click [Yes].



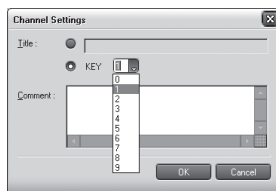
16 The schedule has been registered to the channel on the HDMI Scheduler main screen.
→ Creating a schedule is now completed.



Note

You can assign the channel settings to the number keys [0]-[9] on the HDMA-4000 Remote Controller.

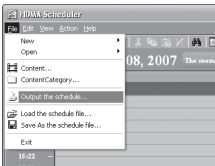
To configure the channel settings, select [File] menu, [New], [Channel] and open the [Channel Settings] dialog. Place a checkmark on [KEY] on the [Channel Settings] dialog, select a KEY number from the pull-down menu, and then click [OK].



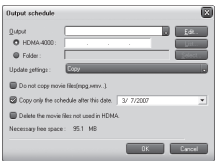
Exporting a schedule

You can export a created schedule as follows:

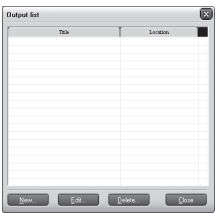
- 1
- On a channel of the HDMA Scheduler main menu, select a content you want to export. Then select [File] menu, [Output the schedule].
→ The [Output schedule] dialog opens.



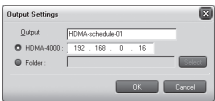
- 2
- Click [Edit].
→ The [Output list] dialog opens.



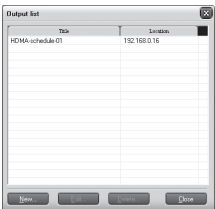
- 3
- Click [New].
→ The [Output Settings] dialog opens.



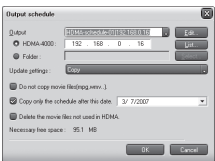
- 4
- Type in the title you want to export, and specify the destination. To export onto an HDMA-4000, enter the destination IP address, and click [OK].
→ The [Output Settings] dialog is closed.



- 5
- The destination is registered to the [Output list] dialog. Click [Close].
→ The [Output list] dialog is closed.



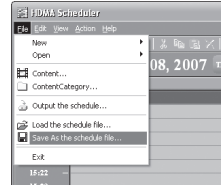
- 6
- Review the schedule settings and click [OK].
→ Exporting a schedule is now completed.



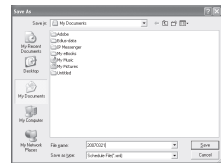
Saving a schedule

You can save a created schedule file.

- 1** Select [File] menu, [Save As the schedule file].
→ The [Save As] dialog opens.



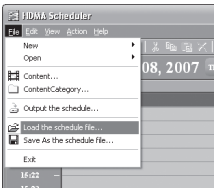
- 2** Specify the destination and the file name, and click [Save].
→ Saving a schedule is now completed.



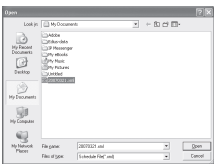
Loading a schedule

You can load a saved schedule file.

- 1
- Select [File] menu, [Load the schedule file].
→ The [Open] dialog opens.



- 2
- Select a schedule file to load and click [Open].
→ Loading a schedule is now complete.





Chapter 4

This chapter provides details on how to startup/shutdown the HDMA-4000.

- Startup and shutdown

Startup and shutdown

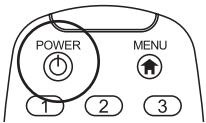
Startup

Here is how to start up HDMA-4000.

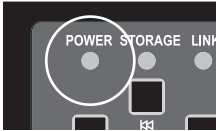
1

Press the ^{POWER}  POWER button on the remote controller.

* If the remote controller has been disabled, the HDMA-4000 cannot be started remotely. In this case, start it by pressing the RESET switch on the rear panel.



The POWER LED on the HDMA-4000 unit will blink, “Boot System” will be displayed on the LCD and the HDMA-4000 will start.



Boot System

2

Once the HDMA-4000 has started, the POWER LED will be on, the main menu will be displayed on the LCD and the content will start playing.

* The main menu displayed will differ according to the LCD information settings.

HDMA-4000
PLAY

Tip

If your remote controller does not function, it may be disabled in the HDMA-4000 hardware settings, or the ID of the HDMA-4000 unit and that of the remote controller may not match.

Press the MENU Key on the front panel to access the settings menu. Check the Remote Control ID of the unit and modify the ID of the Remote Control to the correct setting.

* For more information on the Remote Control ID, see “Remote Control ID setting” in the Appendix.

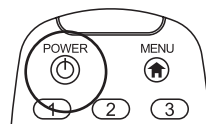
Shutdown

Here is how to close down HDMA-4000.

1

Press the ^{POWER}  POWER button on the remote controller.

* If the remote control has been disabled, the HDMA-4000 cannot be shut down remotely. Press the MENU Key on the front panel to access the settings menu and select "Power off" in SHUTDOWN.



The POWER LED on the HDMA-4000 unit will blink, "Shutdown..." will be displayed on the LCD and the HDMA-4000 will shut down.



Shutdown...

Note

Do not shut the HDMA-4000 unit down while a content or firmware update is in progress.

Note

Perform the shutdown procedures described above and make sure that the POWER LED is off before disconnecting the power plug from the outlet, otherwise the internal HDD or content files may be damaged.

WOL (Wake On LAN)

WOL is a feature that can start the HDMA-4000 via a network when it is in a STOP state. Shut down the HDMA-4000 with DIP switch 1 on the HDMA-4000 rear panel set to ON, to activate the WOL (Wake on LAN) feature.

Note

If the DIP switch is changed while the HDMA-4000 is turned off, the changed setting will not be reflected. Start the HDMA-4000 first and then shut it down to enable the change.

Note

Do not change the settings of DIP switch 2 or DIP switch 3 on the HDMA-4000 rear panel. These switches must remain OFF.



Reference 1

- Contents update

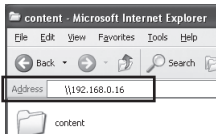
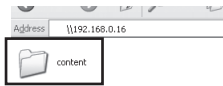
Contents update

The contents can be updated only by copying the Content Update Control file to a USB memory device or to the shared folder on the HDMA-4000. Similar to the contents update, update the schedule file by copying it in the same manner.

* The contents are monitored separately for scheduled playback and for serial control.

Contents update via a network

To update the contents (movie files) and schedule file (Schedule.txt) stored on the internal HDD of the HDMA-4000, the content files, schedule file and content update control file (update.ctl) must be copied to the [content] folder (shared folder).

1	Run Internet Explorer, or Explorer, enter the IP address (E.g.: \\192.168.0.16) in the address bar and press the RETURN key. * The IP address can be checked via the setting menu.	
2	Open the [content] folder. * The user name to access to the [content] folder is "HDMA-4000" and the password is "hdp".	
3	Copy the content file to the [content] folder. * To play content using serial control, specify the title and the chapter name within the folder structures.	
4	Create the schedule file and copy it into the [content] folder. * A sample schedule file can be found on the product CD-ROM, ([Schedule.txt] in the [samples] folder). * The schedule file is not required if the contents are played in serial control mode. * For scheduled playback where the contents are automatically played according to a specified date and time, create a schedule file (Schedule.txt) with a text editor.	

5

Copy the [content] update control file (update.ctl) to the [content] folder.

* Copy the appropriate content update control file for your intended purpose. When script files (such as delete.sh) exist in the folder, copy the script file first before copying the content update control file.

The sample data of the content update control file are on the product CD-ROM ([content update] folder in the [samples] folder).

- Content update control file for scheduled playback
[samples] folder - [content update] folder - [Schedule] folder (For more information, see p.54).
- Content update control file for serial control
[samples] folder - [content update] folder - [Serial] folder (For more information, see p.54).

6

The content update starts.

The content playback stops and "update" is displayed on the LCD. When the update is complete, playback starts based on the new schedule.

* The HDMA-4000 enters the STOP state in serial control mode.

update

Note

When [Samba share] is set to [Enabled] on the [Local settings] of the Web console, the [playlist] (content folder for scheduled playback) and the [serial] (content folder for serial control) can be accessed directly in order to write/save, without using the content update control files.
Make sure that the HDMA-4000 is stopped before updating/deleting contents directly.
When contents are changed without using content update functions, be sure that the HDMA-4000 recognizes that the contents have been changed. In scheduled playback mode, press the [MENU] button on the remote control, or switch to serial control mode once and then return to scheduled playback mode. In serial control mode, switch to scheduled playback mode once and then return to serial control mode (see Reference 3).

Tip

Contents of the [Schedule] folder and [Serial] folders
Samples of the update control files are stored in the [Schedule] and [Serial] sub-folders of the [content update] folder in the [Samples] folder on the product CD-ROM. The sample files are categorized by function and stored in the following folders:

[backup] Folder.....	Moves the contents that have been stored in the HDMA-4000 to a backup folder and downloads the new contents. The contents in the backup folder will not be deleted. The contents and the schedule files in the backup folder can be restored (See the [restore] folder section).
[backup and delete] Folder ...	Moves the contents which have been stored in the HDMA-4000 to a backup folder and downloads the new contents. The contents in the backup folder will be deleted.
[copy] Folder	Adds new contents to the HDMA-4000 and keeps the contents that have already been stored. If the contents have the same name, the files will be overwritten.
[delete] Folder	Deletes the contents stored in the HDMA-4000. The contents in the backup folder will not be deleted.
[delete all] Folder.....	Deletes all the contents stored in the HDMA-4000. The contents in the backup folder will also be deleted.
[play] Folder.....	Regardless of the schedule file or serial control, plays the contents stored in the HDMA-4000 consecutively. The details of the contents can also be viewed.
[restore] Folder.....	Restores the contents and the schedule files from the backup folder. The backup file contents will be restored in chronological order, with the most recent contents first.

Tip

Contents of the [Schedule.txt] folder

The following folders and files are stored in the [Schedule.txt] folder in the [Sample] folder on the product CD-ROM.

- [daily] Folder Specifies '*' as the date in a schedule, and plays the same scheduled contents every day.
- [date-time] Folder Specifies the date and the time and plays the specified contents at the specified time.
- [RC] Folder Plays the content defined as a channel corresponding to the key operation from the remote control or the front panel.
- [repeat] Folder Plays the files defined in the content block repeatedly.

Contents update via USB

This operation is similar to that in steps 3 to 5 in the previous section. To update contents with a USB device, copy the content (movie file), schedule file (Schedule.txt) and content control file (update.ctl) to a USB device. Attach the USB device that contains all the required files for updating to the USB port of the HDMA-4000. The HDMA-4000 will automatically detect the connection of the USB device and then the contents update will start. When the contents update is complete, playback of the new contents or the scheduled playback will restart.

* The HDMA-4000 enters the STOP state in serial control mode.

Note

If the USB device is removed while an update is in progress, the update may not be performed properly, damaging the files or causing playback errors. When the contents stored on a USB device are being played directly, stop the playback by pressing the Stop button on the remote control or the front panel before removing the USB device. When removed, the HDMA-4000 starts playing the content stored on the HDD.

Description of the contents update control file

'#' precedes comments. Comments can be added anywhere.
Items are delimited by a space, a tab or a comma.

Write the data type to update after *"*Update"* on the first line.

*Update *datatype*

datatype

- *Schedule Updates data for scheduled playback.
- *Serial Updates data for serial controlled playback.
- *Play playlist.schedule Plays file directly without updating.
 If playlist.schedule (the schedule file name to
 be used for playback) is omitted, the default file
 (Schedule.txt) will be used.
- *Update filename Updates the HDMA-4000 firmware (restarts the unit once
 the update has been completed).

Write the copy method after *"*Copy"* on the second line.

This section is required when *"*Update"* is *"*Schedule"* or *"*Serial."*

*Copy *copytype*

Copytype

- *copy Copies data to the playback folder.
- *file Copies the files specified by the *"*File"* command to the
 playback folder.
- *backup Backs up and copies the data in the playback folder.
- *restore Restores the most recent backup (the data in the playback
 folder will be erased).
- *play Plays all the files in the playback folder, one by one.

Write the third line if necessary.

This section will be ignored, unless *"*Update"* is with *"*Schedule"* or *"*Serial."*

- *Delete Deletes the specified file.
- *Delete *backup Deletes the backup file.
- *File Specifies the file to copy, when *"*Copy"* is specified as *"*file."*
- *Script Executes a shell script.

**Content update control file description sample**

```
# HDMA-4000 content update file
# Write the data type to update on the first line.
*Update      *Schedule
## [*Schedule | *Serial | *Play | *Update] - Write one of these.
    # *Schedule - Data for scheduled playback.
    # *Serial    - Data for serial controlled playback.
    # *Play      - Plays file without updating.
    # *Update    - HDMA-4000 firmware update.
*Copy        *backup # Backs up and copies data.
## [*copy | *file | *backup | *restore] - Write one of these.
*Delete      *backup
*Script script01, script02, script03, script04
    # Executes scripts one by one.
```

Description examples**Restoring the most recent backup**

```
*Update      *Schedule
*Copy        *restore
```

Note

Although the use is limited, the contents of a USB device can be played directly. When the contents stored on a USB device are being played directly, stop the playback by pressing the Stop button on the remote control or the front panel before removing the USB device. When the USB device is removed, the HDMA-4000 starts playing the contents stored on the HDD.



Copying/deleting the specified files

*Update	*Schedule
*Copy	*file
*file	sample1.m2t
*file	sample2.m2t
*Delete	sample3.m2t



Updating serial control files

*Update	*Serial
*Copy	*copy



Playing contents directly without copying

*Update	*Play
---------	-------



Playing all the files for scheduled playback one by one

*Update	*Schedule
*Copy	*play



Reference 2

- How to create contents
- How to create a schedule

The method explained in this chapter is an example. To create a movie that can be played on the HDMA-4000 unit, it must be encoded with proper settings.

If you have any difficulty with creating movies, please consult your local retailer.

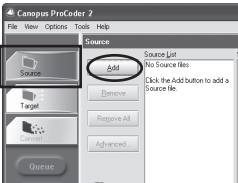
How to create contents

Output parameter settings

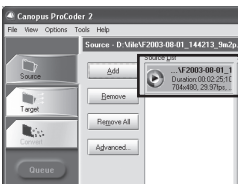
1 Run ProCoder 3.0.
From the [Start] menu, select [All programs], [Canopus], [ProCoder 3], [Canopus ProCoder 3].



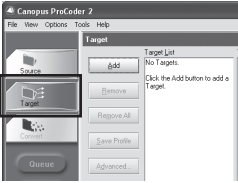
2 Confirm that [Source] is selected in the left field of the window. Click [Add] and choose the clip to convert.



3 The source clip is added to the list.

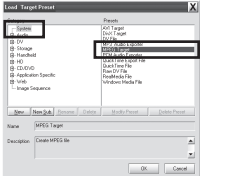


4 Click the [Target] button to open the target selection screen.

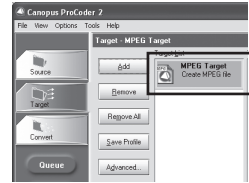


5 Click the [Add] button.

6 In the preset selection dialog, select [System], [MPEG/VOB file exporter (software)] or [MPEG file exporter (hardware)] and click [OK].



7 The conversion target is added to the list.



8 Click the [Advanced] button and set the parameters.

* Recommended values for MPEG2 format.

- [Audio Stream Type]... [MPEG Audio layer2]

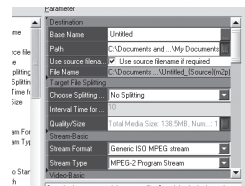
- [Interlacing]..... [Upper / Top Field First]

- [Profile / Level]..... [MP@HL]

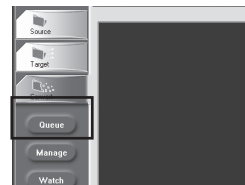
* The HDMA-4000 supports MP@HL, MP@H14 and MP@ML.

- [Video Bitrate]..... Up to 40Mbps is recommended.

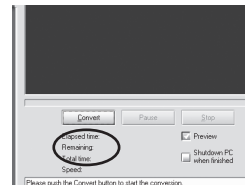
- Check [Put Sequence Header on each GOP].



9 Click the [Convert] button.



10 Click the [Convert] button.
The file conversion starts. The converted file will be created in the folder specified by [Path] in Step 8.



Note

The content name is case sensitive.

How to create a schedule

To execute scheduled playback on the HDMA-4000, create a schedule file with a text editor and register (copy) it to the HDMA-4000 unit.

Description of schedule text

A schedule file is a text file named "Schedule.txt." It consists of a content definition block and a schedule definition block.

- * The composition of a schedule file varies, depending on the settings.
- * The file name is case sensitive.

- Content definition block

Starting with ";Contents", it describes the content name and the content files which are included in each block.

Write the content name at the top of the line. To specify content files, add a "Tab" at the top of the line and write the path name (the relative path from the folder where Schedule.txt has been saved).

- * Define the contents, which are specified in the schedule, here.
The content file cannot be specified directly with the content name.

- Schedule definition block

Starting with ";Schedule", it describes the channel name and its schedule. When multiple channels (schedules) are written, the first channel will be executed (default setting).

Write the channel name and the date of the schedule at the top of the line and add a TAB at the top to insert the Time. (Where "*" is specified as the Date or Time, the schedule is executed when no schedule entry matches the current time and date). If no schedule entry matches the current date and time, the HDMA-4000 will enter the Stop state.

Seamless playback and volume adjustment are available in the scheduled playback.

- * Seamless playback

Seamless playback is a function whereby two different files are played seamlessly. With the HDMA-4000, files described in the same content can be played seamlessly. To enable seamless playback, add "1" (1: ON, 0: OFF) after the content name in the content definition block (See *1 on the next page). The files used in seamless playback have to be encoded in the same format and have the same parameters. Files in different formats (e.g.. MPEG2 transport stream/program stream) cannot be used for seamless playback. When the parameters of the files are different, the second or later files may not play properly.

* Volume adjustment

The HDMA-4000's volume can be changed according to the schedule. To adjust the volume, write the volume value, such as 50,50 (meaning left volume is 50, right volume is 50) at the end of the content name in the schedule definition block (See *2 below). The volume values can be specified in the range 0-50. When a volume value is not specified, the current volume setting is used. Please do not specify a value out of the setting range. In the default setting, the volume value is specified as 50,50 (0db).

```
;Contents    --- Content definition block starts
HDMAContents0 *1 --- Content name
    movie01.m2t    --- Content file (Needs a TAB at the top of the line)
    movie02.m2t    --- Change lines for multiple files and write similarly.
HDMAContents1 *1
    movie11.m2t
    movie12.m2t
HDMAContents2 [0]
    movie21.m2t
    movie22.m2t
```

Flag for seamless playback
 0 --- Disables seamless playback
 1 or none --- Enables seamless playback

```
;Schedule    --- Schedule definition block starts
Channel1     --- Channel name
2005/01/23   --- Date of the schedule
    12:00:00-12:10:00 0 HDMAContents0 --- Content playback schedule
    12:10:00-13:00:00 1 HDMAContents1 *2
```

```
2005/01/24
    00:00:00-23:59:59 [1] HDMAContents0 [30,30]
```

Date

Playback time

Content name

Volume (Left, Right)

Flag for repeat playback
 0 --- Stops when content playback ends
 1 --- Repeats content playback

In the default setting, the channel appearing on the next line after the line where ";Schedule" appears will be executed as the default channel. (This setting can be changed.)

Note

- The content file name and channel name have to start with letters [a-z, A-Z]. Available characters are [0-9, a-z, A-Z, | # \$ % & ' () + - : ; [] ^ _ ` { } ?].
- The content file name, content name and channel name are case sensitive.
- If the content name and the repeat flags of the consecutive schedules are the same, they are treated as a single schedule.
- Empty lines and lines starting with "#" in a schedule file will be ignored.
- The maximum length of a line in a schedule file is 1,023 bytes, including the linefeed code.
- The time, repeat flag, content name, seamless flag and volume value have to be delimited by a TAB.

Keys and channel names

The channel names "KEY1" to "KEY9" and "KEY0" are used as the schedule that is executed when the relevant key is pressed on the remote control, front panel or USB keyboard.

The channel names (KEY1 - KEY0) correspond to the following keys:

KEY1.....	Button 1 on the remote control , F1 on the Front panel, 1 on a USB keyboard (numeric keypad).
KEY2.....	Button 2 on the remote control , F2 on the Front panel, 2 on a USB keyboard (numeric keypad).
KEY3.....	Button 3 on the remote control, F3 on the Front panel, 3 on a USB keyboard (numeric keypad).
KEY4.....	Button 4 on the remote control or 4 on a USB keyboard (numeric keypad).
KEY5.....	Button 5 on the remote control or 5 on a USB keyboard (numeric keypad).
KEY6.....	Button 6 on the remote control or 6 on a USB keyboard (numeric keypad).
KEY7.....	Button 7 on the remote control or 7 on a USB keyboard (numeric keypad).
KEY8.....	Button 8 on the remote control or 8 on a USB keyboard (numeric keypad).
KEY9.....	Button 9 on the remote control or 9 on a USB keyboard (numeric keypad).
KEY0.....	Button 0 on the remote control or 0 on a USB keyboard (numeric keypad).

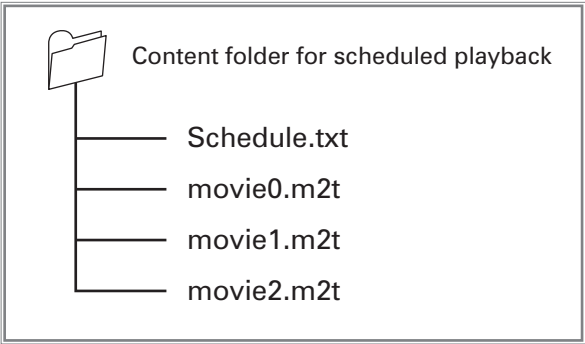
Operation when the schedule file is invalid

When errors exist in the entries of a schedule file, the HDMA-4000 operates as follows:

Error	Operations
When the file specified in the content definition block does not exist.	The next file will be played.
When the content specified in the schedule definition block cannot be found in the content definition block.	Playback will be stopped.
When the end time is earlier than the start time in the schedule definition block.	The schedule will be ignored.
When the same dates exist in a schedule definition block.	The last schedule entry will be executed.
When multiple content definition blocks or schedule definition blocks have the same names.	Playback will be stopped.
If multiple contents or channels have the same names.	Playback will be stopped.

Examples of a schedule

In this section, the examples are explained in an environment where the contents are stored as follows:



Repeating the playback of files

```
;Contents
HDMAContents
    movie0.m2t
    movie1.m2t
```

* When the schedule file consists of only a content definition block, the first content will be played repeatedly.



Playing the same schedule every day

```
;Contents
HDMAContents0
    movie0.m2t
HDMAContents1
    movie1.m2t
HDMAContents2
    movie2.m2t
;Schedule
Channel1
*    --- Specify the wildcard character as the schedule date.
08:00:00  1  HDMAContents0  --- Plays from 08:00 to 11:59
12:00:00  1  HDMAContents1  --- Plays from 12:00 to 18:59
19:00:00  1  HDMAContents2  --- Plays from 19:00 to 20:59
21:00:00          --- Stops from 21:00 to 23:59
```

- * When the end time is omitted, the schedule is considered as having 23:59:59 specified as the end time.
- * When multiple schedules contradict each other, the last one will be used.
- * When no content name appears in a schedule, the playback stops for the duration specified in the schedule.



Schedule that runs past midnight (0:00)

To play the movie0.m2t repeatedly from 23:00 on December 31 to 01:00 on January 1

```
;Contents
HDMAContents0
    movie0.m2t
;Schedule
Channel1
2005/12/31
    23:00:00-23:59:59  1  HDMAContents0
2006/01/01
    00:00:00-01:00:00  1  HDMAContents0
```

- * The content names and the repeat flags have to be the same.

To play the movie0.m2t repeatedly from 23:00 to 1:00 (25:00) every day

```
;Contents
HDMAContents0
    movie0.m2t
;Schedule
Channel1
*
    00:00:00-01:00:00  1  HDMAContents0
    23:00:00-23:59:59  1  HDMAContents0
```

* The content names and the repeat flags have to be the same.



Playing a different schedule on a specified date only

```
;Contents
HDMAContents0
    movie0.m2t
HDMAContents1
    movie1.m2t
HDMAContents2
    movie2.m2t
;Schedule
Channel1
2006/01/15
    11:00:00-12:59:59  1  HDMAContents2
*
# On a date other than the above one, the following schedule is executed
    00:00:00-11:59:59  1  HDMAContents0
    12:00:00-23:59:59  1  HDMAContents1
```



Adjusting volume

```
;Contents
HDMAContents
  movie.m2t
HDMAContents0
  movie0.m2t
HDMAContents1
  movie1.m2t
;Schedule
Default
*
  00:00:00-07:59:59  1  HDMAContents0  20,20
  08:00:00-16:59:59  1  HDMAContents1  50,50
  17:00:00-21:59:59  1  HDMAContents2
  22:00:00-23:59:59  1  HDMAContents2  30,30
```

Changes volumes according to the schedule.



Specifying the time to shut the unit down

```
;Contents
HDMAContents
  movie.m2t
;Schedule
Default
*
  00:00:00-07:59:59  1  @poweroff  ← Shuts the unit down at the specified
                                   time.
```

* In the example above, the unit will be turned off at 00:00:00. (When a period of time is specified, power off will be executed at the time given on top (at 00:00:00 in the example above).)



Playing the content specified by the buttons on the front panel or the remote control

```
;Contents
HDMAContents
  movie0.m2t
HDMAContents0
  movie1.m2t
HDMAContents1
  movie2.m2t
;Schedule
Default
* 1 HDMAContents
KEY1
* 1 HDMAContents0 --- Played repeatedly
KEY2
* 0 HDMAContents1 --- Returns to the default schedule when playback stops
```

- * The schedule specified as the channel corresponding to the key is executed.
- * If no channel in the schedule corresponds to a key, nothing will happen.
- * If the date is not specified, the time is set to "*" and the repeat flag is set to 0 and when the playback of the content ends, the schedule of the first channel specified the schedule file is executed.



Seamless playback setting

```
;Contents
HDMAContents1 1 --- Seamless enabled
  movie.m2t
  movie1.m2t
  movie2.m2t
HDMAContents0 0 --- Seamless disabled
  movie1.m2t
  movie1.m2p
```

- * When the seamless setting is not specified, the HDMA-4000 executes seamless playback.



Reference 3

- Serial control

Serial control

The HDMA-4000 can be controlled from a device connected to the serial port. The HDMA-4000 has two serial command modes: Pioneer LD/DVD mode, which is more compatible with a Pioneer CD/DVD, and HDMA-4000(Ver.1.1x) mode, which is a traditional serial control command mode.

These modes can be changed via a Web browser's settings page. (See Reference 4).

Note

Synchronized playback of the HDMA-4000 is only available in the Pioneer LD/DVD mode.

- Connection

Connect a device which has a RS-232C port to the HDMA-4000 with a serial cable (to connect to a PC, use a cross-over cable).

- Network transmission setting

The default settings are: 9600bps, 8bits, no parity, stop bits 1. The settings can be modified with a WEB browser (See Reference 4).

- Command

The two characters, <CR>(0x0d) are required at the end of the command line. When the connection and the settings are done properly, R<CR> is returned. If an error occurs, xx<CR>* is returned.

* xx Substitutes for the error number.

Multiple commands can occur on a line (Up to 25 characters).

In command controls, do not issue further commands until a response has been received to the previous one.

When network serial control is enabled on the Web console, the HDMA-4000 can be controlled with the same commands via the network. (Connect a device to a specified port, 12000 is the default setting, with terminal communication software such as Telnet.)

Note

In serial control mode, files with the extension m2p, m2t or mpg are recognized as content files.

Command descriptions (Pioneer LD/DVD mode)

Note

While the Pioneer LD/DVD mode is designed to be compliant to Pioneer, its operations are not identical to the HDMA-4000(Ver.1.1x) mode.

Supported commands

(arg)RJ	Stops the HDD. Ignores the arguments.
SA	Starts the HDD. (Playback is available without starting with this command.)
(adrs)PL	Starts playback from the current position. With an address specified, stops at the specified position.
PA	Pauses with the video displayed.
ST	Pauses with the video displayed. (The same as PA)
adrs SE	Pauses with the specified address displayed.
adrs SL	Starts playback from a specified address.
adrs SM	Sets a stop marker at a specified address.
CL	Cancels auto play mode and the stop marker.
FR	Uses a frame for the address mode. If the ContentFrame.idx file is not present, this returns an error. (See page 79 for ContentFrame.idx.)
TM	Uses time for the address mode. If the ContentTime.idx file is not present, this returns an error. (See page 80 for ContentTime.idx.)
CH	Uses a chapter for the address mode.
TI	Uses a title for the address mode.
arg AU	Audio settings (Supports mute only.) 0 Mute Others Mute off
arg AD	Audio settings (Supports mute only.)
arg KL	Enables/Disables operations from the remote controller, etc. 0 Unlocked. 1 Locked. 2 Disables power OFF. 3 Disables operations from the front panel. 4 Disables power OFF and operations from the front panel. 5 Disables operations from the remote controller.
RM	Switches to repeat mode.

arg SK	Jumps chapters. 1 Next chapter. 2 Previous chapter. 3 Top of the current chapter.	
?A	Returns current positions. Style: TTCCMMMMSS TT: Title number (2 digits), CC: Chapter number (2 digits), MMMM, SS: Time (Not supported. Always returns 0).	
?R	Returns the title number at the current position. Style: TT Title number (2 digits).	
?C	Returns the chapter number at the current position. Style: CC Chapter number (2 digits).	
?Y	Returns the frame number of the title currently played.	
WW	Specifies the time. Style: YYMMDDWWHHMMSS WW<CR> Specify this as YYMMDDWWHHMMSS<CR>	
arg MS	Specifies repeat mode.	
	0MS	Does not repeat. (Stops at the last title.)
	8MS	Repeats the chapter.
	16MS	Repeats the title.
	24MS	Repeats all the titles.
?P	Returns the current mode. Style: PMM (MM Operation mode). P04 Playing video. P05 Paused. P06 Stopped.	
?X	Returns the product name (HDMA-4000).	
?W	Returns the time Style: YYMMDDWWHHMMSS Year, Month, Date, Day of Week (Mon:00 - Sun:06), Hour, Minute, Second.	
?S	Returns the repeat mode settings.	
?E	Returns the most recent error code.	
?Z	Returns the HDMA-4000 version.	

* The part in brackets "()" can be omitted. When omitted, the default value is used.

* Only PO, POFF and ?I are available in scheduled playback mode.

Unique extended commands

SO	Stops playback (With a blank screen).	
arg VO	argVO	Specifies volume.
arg VL	argVL	VO=Equal volume on the left and right, VL=Left, VR=Right.
arg VR	argVR	0-50.
arg PO	Controls mode.	
	0PO	Switches to play list mode.
	1PO	Switches to DVD mode.
(arg)POFF	Turns the power off (99POFF will reboot the unit.)	
CR	Changes the content root folder. Specify the relative path from the serial control content folder with enclosing quotation marks. The operation mode will be initialized.	
arg CD	Changes the drive to search for contents. 0 Internal HDD. 1 USB drive. 2 - 5 Network drives A - D.	
?O	Returns the volume settings. Style: LLRR LL Left volume, RR Right volume.	
?L	Number of contents.	
?U	Number of sync lists. (Available to communicate/Total number.) * For units other than the HDMA-4000Sync, this will always be (0/0).	
arg RX	Advanced settings. (Write the sum of the setting values.) 1 Uses a blank screen when stopped. 2 Does not display the top of the file in SE. 4 Does not clear repeat mode in CL.	
\$X	Loads advanced settings.	
?I	Returns the IP address. Returns R when the IP address is not specified.	

* Only PO and POFF are available in scheduled playback mode.

Note

When multiple commands are written on one line, if the next command is sent before a response is returned, the next command will be executed, ignoring commands that have not yet been executed. In this case, sending a <CR> will abort the execution of multiple commands.

Changing serial control settings and the sync unit list

To change the HDMA-4000 operations to a specific command, create the following settings file [psctl.conf] in the [serial] folder and reboot the HDMA-4000 unit.

* For a sample of [psctl.conf], see the [Serial contents] folder on the product’s CD-ROM.

- psctl.conf example

```
[Pioneer]
SYNC=UNIT1
SYNC=UNIT2
stop_mode=0
se_mode=0
play_sm=0
po_every=0
clrm_mode=0
```

SYNC	Lists the HDMA-4000Sync host name to synchronize. Required to execute synchronized playback with multiple units.
stop_mode	0 Stops with the final image displayed. 1 Stops with a blank screen displayed.
se_mode	0 When the adrsSE command is executed, stops with the first image displayed. 1 When the adrsSE command is executed, stops with a blank screen displayed. (Playback will not start internally.) * In sync mode, regardless of this setting, stops with the first image displayed.
clrm_mode	0 Clears repeat mode with the CL command. 1 Does not clear repeat mode with the CL command.
play_sm	0 In adrsPL, does not return R until stopped. 1 Immediately returns R even in adrsPL.
po_every	0 When 0PO/1PO is the same as the current state, only returns R. 1 Regardless of the current state, executes the change at 0PO/1PO.
drive_ext	0 To use a USB, NAS Drive, use the root (/) directory. 1 To use a USB, NAS Drive, use the /serial directory of the drive.
cmdqi_ext	0 Returns the IP address to the ?I command. 1 An error occurs.

*When this setting’s value is not defined, it will be set to 0.

ERROR codes

- E00..... Communication error.
- E04..... Unavailable function.
- E06..... Invalid parameter.
- E11..... Disk not present.
- E12..... Search address cannot be found.
- E15..... Picture stopped.
- E16..... Control, from key/remote controller/remote serial, detected while a command is in progress.
- E99..... A fatal error has occurred.
- R..... Communication ends properly (response to a command that does not return values).

Controls by frame or time

When using serial control with a laserdisc, the playback starting position can be specified by frame or timecode of the disk.

In HDMA-4000, create a ContentFrame.idx file where content frames are registered, or a ContentTime.idx file where timecodes are registered and place these in the [serial] folder, to enable the supported commands, FR and TM, thus enabling search and playback in accordance with the contents' frame or timecode.

* If the contents registered in the ContentFrame.idx or ContentTime.idx files do not exist, all serial controls based on the frame/timecode will return errors.

- FR command

In order to use the FR command, create a ContentFrame.idx file in the [serial] folder.

The descriptions in the ContentFrame.idx file are as follows:

Frame number [TAB] File name,0

- * [TAB] represents a tab character.
- * Always add the ,0 characters to the end of a file name.

For example, to play multiple contents back using serial controls, in the event that the contents are sequential frames on a laserdisc, use the following descriptions:

FR	# Changes to frame specification mode.
1SE	# Displays 1 frame.
1000PL	# Plays until frame 1000 and stops.
1001SE	# Displays frame 1001.
2000PL	# Plays until frame 2000 and stops.
2501SE	# Displays frame 2501.
2800PL	# Plays until frame 2800 and stops.



ContentFrame.idx Sample

1	file-01.m2t,0
1000	file-01_stop.m2t,0
1001	file-02.m2t,0
2000	file-02_stop.m2t,0
2501	file-03.m2t,0
2800	file-03_stop.m2t,0

Diagram illustrating the structure of the ContentFrame.idx file. The first column is labeled *Frame number* and the second column is labeled *File name ,0*.

* With serial controls, because the contents will be played in ascending alphabetical order in accordance with the file name, frame numbers must be assigned consistently with the ascending alphabetical order of file names.

Also note that, in the above example, the following six content files must be placed in the [serial] folder.

file-01.m2t	#Content that substitutes for frames 1 to 1000.
file-02.m2t	#Content that substitutes for frames 1001 to 2000.
file-03.m2t	#Content that substitutes for frames 2501 to 2800.
file-01_stop.m2t	#Dummy file 1 for specifying the stopping frame.
file-02_stop.m2t	#Dummy file 2 for specifying the stopping frame.
file-03_stop.m2t	#Dummy file 3 for specifying the stopping frame.

* For dummy files that specify the stopping frame, place MPEG2 files in the folder. (In this example, 3 files are required.)

- TM command

In order to use the TM command, create a ContentTime.idx file in the [serial] folder.

The descriptions contained in ContentTime.idx are as follows:

Timecode [TAB] File name,0

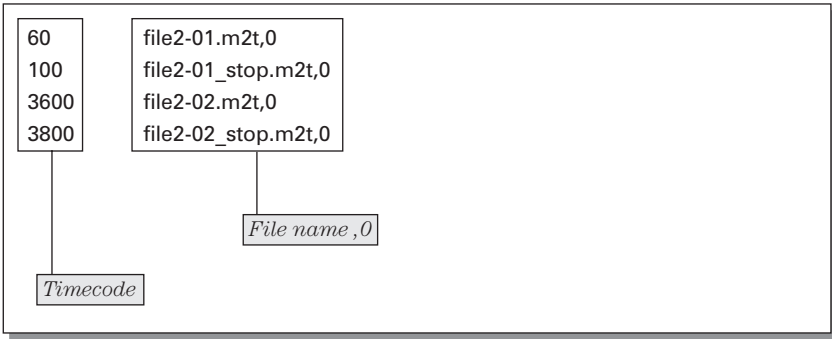
- * [TAB] represents the tab character.
- * Always add the ,0 characters at the end of a file name.

For example, to playback multiple contents using serial controls, in the event that the contents are sequential frames on a laserdisc, use the following descriptions:

TM	# Switches to time specification mode.
60SE	# Plays the frame that corresponds to 60 second.
100PL	# Plays to the frame that corresponds to 100 second and stops.
3600SE	# Plays the frame that corresponds to 3600 second.
3800PL	# Plays to the frame that corresponds to 3800 second and stops.



ContentTime.idx Sample



* With serial controls, because the contents will be played in ascending alphabetical order in accordance with the file name, frame numbers must be assigned consistently with the ascending alphabetical order of the file names.

Also note that, in the above example, the following four content files must be placed in the [serial] folder.

file2-01.m2t	# Content that corresponds to 60 to 100 second.
file2-02.m2t	# Content that corresponds to 3600 to 3800 second.
file2-01_stop.m2t	# Dummy file 1 for specifying the stopping position.
file2-02_stop.m2t	# Dummy file 2 for specifying the stopping position.

* For dummy files to specify the stopping position, place MPEG2 files in the folder (in this example, two files).

Command descriptions (HDMA-4000 Ver.1.X mode)

Supported commands

(adrs)PL	Starts playback from the current position. With an address specified, stops at the specified position.	
ST	Pauses with the video displayed.	
adrs SE	Pauses with the specified address displayed.	
adrs SL	Starts playback from a specified address.	
CH	Uses the chapter for address mode.	
TI	Uses the title for address mode.	
arg AD	Audio settings (Supports mute only).	
?A	Returns current positions. Style: TTCCMMMMSS TT Title number (2 digits), CC Chapter number (2 digits), MMMM,SS Time.(Not supported. Always returns 0.)	
?R	Returns the title number at the current position. Style: TT Title number (2 digits).	
?C	Returns the chapter number at the current position. Style: CC Title number (2 digits).	
arg MS	Specifies repeat mode.	
	0MS	Does not repeat. (Stops at the last title.)
	8MS	Repeats the chapter.
	16MS	Repeats the title.
	24MS	Repeats all the titles.
?P	Returns the current operation mode of the player. Style: PMM (MM Operation mode). P04 Playing video. P05 Paused. P06 Stopped.	
?S	Returns the repeat mode settings.	
SO	Stops playback. (With a blank screen.)	
arg VO arg VL arg VR	argVO Specifies the volume. argVL VO=Same volume on the left and right, VL=Left, VR=Right. argVR 0-50.	
arg PO	Control modes.	
	0PO	Switches to the scheduled playback mode. (Default)
	1PO	Switches to serial control mode.

POFF	Turns the HDMA-4000 off.
"dir"CR	Changes the folder in which to search for contents. Specify the relative path from the serial control content folder, enclosed in quotation marks (" "). Operation mode will be initialized.
arg CD	Changes the drive on which to search for contents. 0 Internal HDD. 1 USB drive. 2 - 5 Network drives A – D.
?O	Returns the volume settings. Style: LLRR LL Left volume RR Right volume
?I	Returns the IP address. Returns R when an IP address is not specified.

* The characters enclosed in () can be omitted. If omitted, default values are used.

* In scheduled playback mode, only P0, POFF and ?I are available.

Error codes

E00..... Communication error.

E04..... Unavailable function.

E06..... Invalid parameter.

E12..... Search address cannot be found.

E99..... Fatal error occurred.

R Communication ends properly (response to a command that does not return values).

How to use serial control

1	When the HDMA-4000 is set to scheduled playback mode, send a command, 1PO, to the serial port and switch the unit to serial control mode.
2	Send a command, CH, SE, to the content you want to play and move to it. * Send TI2SECH3SE to move to Title 2, Chapter 3.
3	Send a command, PL, to start playback.
4	Set the repeat mode with the MS command, if necessary.
5	To return to the scheduled playback, send a 0PO command.

- The default state of serial control mode

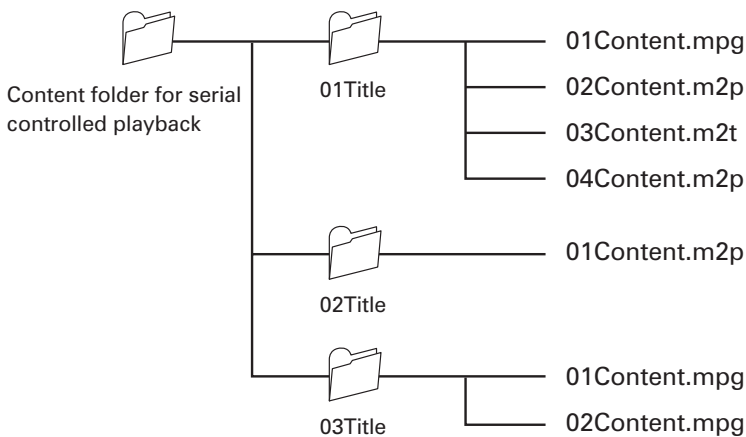
- Current position.....Title 1, Chapter 1.
- Address mode Specified by title.
- Repeat mode Repeat disabled.
- Operating mode Stopped.

Managing a content file

To retain compatibility with serial control of generic DVDs/LDs, the title and chapter are used as the address specification mode. Unlike those of DVDs/LDs, these address values are given title and chapter numbers based on the folder construction on the HDD.

On the HDMA-4000, all the content files should be stored in a specific folder (the content folder for serial controlled playback). Any folder and content files can be placed in a content folder for serial controlled playback.

Chapters correspond to the content files, while titles correspond to the folders where multiple content files are stored. Note that the order of titles is decided by the sorting result of the folder names and the order of chapters is decided by the sorting result of the content file names. The maximum number for titles and chapters is 99.



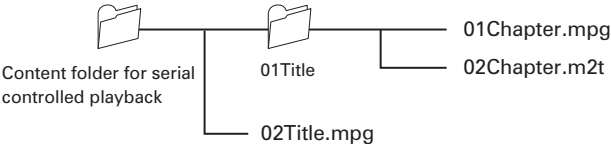
The details of each address mode are described on the following pages.

Title

A sub-folder or a content file in the content folder for serial controlled playback is regarded as a title. When a sub-folder is in the content folder for serial controlled playback, the group of content files in it is regarded as a title. The items in the content folder for serial controlled playback are sorted and given serial numbers starting from 1 so these can be used as title numbers.

Tip

In the following file construction, the "01Title" folder will be title 1 and if playback is selected, "01Chapter.mpg" and "02Chapter.m2t" will be played. Title 2 will be the "02Title.mpg" file.

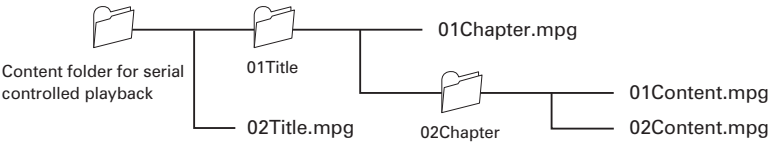


Chapter

A content file in a title folder is regarded as a chapter. A sub-folder in a title folder is also regarded as a chapter. The files in the title folder are sorted and given serial numbers starting from 1 so as to use these as chapter numbers. Before specifying an address by chapter number, make sure to set the title numbers first. When a search is performed with a chapter number specified, the specified chapter position of the current title will be found.

Tip

In the following file construction, Chapter 1 of Title 1 will be "01Chapter.mpg", while Chapter 2 of Title 1 will be "01Content.mpg" and "02Content.mpg." Note that Chapter 1 of Title 2 will be "02Title.mpg" and Chapter 2 does not exist. (Returns E12 when searched.)



Seamless playback

Seamless playback can be enabled/disabled from the Web console. When seamless playback is enabled, all the files under the content folder will be played seamlessly. Seamless playback is available only for sequential playback. When content is skipped because of a command, seamless playback will not be performed.

To enable seamless playback, the files have to be encoded in the same format and have the same parameters. When seamless playback is attempted with files that have different parameters, the second or later files may not play properly. To play files that are incompatible with seamless playback, use a Web browser and disable seamless playback on the settings page.



Reference 4

- Setup using the front panel
- Setup using Web browser
- Updating firmware
- Maintenance Mode

Setup using the front panel

Settings menu

Enter the settings menu with the MENU key or the  key . Choose a setting by using the  or  key of the Select keys. Configure settings by using the  or  key.

* The system may have to be restarted for some settings to take effect.

- 1.VIDEO..... Specifies the video format.
- 2.NETWORK..... Configures the network settings.
- 3.SYSTEM..... Configures date/time, remote control ID and LCD information settings.
- 4.CONTENTS DRIVE Specifies the default content settings.
- 5.INFORMATION Displays system information.
- 6.SHUTDOWN Shuts down or restarts the HDMA-4000.

Key operations in setting menu

  ⏪ key ⏩ key	Selects setting.
 or  ⏩ key ⏩ / ENTER ENTER key	Adopts the setting.
 or  ⏪ key Cancel key	Cancels the setting.
 MENU MENU Key	Exits the settings menu.
F1 F2 F3   	Not used.

1.VIDEO

MENU

1. VIDEO

VIDEO

1. OutPut

Specifies the video output format.

VIDEO

[1080/59.94i

⬆ ⬇ ⬆]

Outputs a 1080/59.94i HD signal.

VIDEO

[720/59.94p

⬆ ⬇ ⬆]

Outputs a 720/59.94p HD signal.

VIDEO

[1080/50i

⬆ ⬇ ⬆]

Outputs a 1080/50i HD signal.

VIDEO

[720/50p

⬆ ⬇ ⬆]

Outputs a 720/50p HD signal.

VIDEO

[1080/59.94i (DVI)

⬆ ⬇ ⬆]

Outputs a 1080/59.94i DVI signal.

VIDEO

[720/59.94p (DVI)

⬆ ⬇ ⬆]

Outputs a 720/59.94p DVI signal.

VIDEO

[1080/50i (DVI)

⬆ ⬇ ⬆]

Outputs a 1080/50i DVI signal.

VIDEO

[720/50p (DVI)

⬆ ⬇ ⬆]

Outputs a 720/50p DVI signal.

VIDEO

[NTSC (J)

⬆ ⬇ ⬆]

Outputs a 480/59.94i (NTSC for Japan) SD signal.

VIDEO

[NTSC (US)

⬆ ⬇ ⬆]

Outputs a 480/59.94i (NTSC for North America) SD signal.

VIDEO [PAL]	Outputs a 576/50i (PAL) SD signal.
VIDEO 2. AsPect	Specifies the monitor aspect ratio according to the monitor being used.
AsPect [16:9]	Select this when a 16:9 monitor is used.
AsPect [4:3]	Select this when a 4:3 monitor is used.
VIDEO 3. DisPlay mode	Specify the display method for the monitor at an aspect ratio of 4:3.
DisPlay mode [Letter box]	The top and bottom of the screen is black when the content aspect ratio is 16:9.
DisPlay mode [Panscan]	The sides of the video are trimmed when the content aspect ratio is 16:9.
DisPlay mode [Full]	Displays the picture in full-screen mode.

- * Do not connect a TV to the component output port in DVI output modes.
- * The DVI signal may not be displayed properly on some PC monitors.
- * The default setting is [Video 1080/59.94i].

2.NETWORK

MENU
2. NETWORK

NETWORK
1. IP configuration

Specifies the IP address.

IP configuration
[DHCP ↵]

Specifies the IP address using DHCP. Pressing the ENTER key or the $\blacktriangleright$ key sets the IP address automatically and returns to the parent menu.

IP configuration
[AUTOIP ↵]

Detects an available address on the network and uses it.

IP configuration
[Manual ↵]

Specifies the IP address manually. Pressing the ENTER key or $\blacktriangleright$ key opens the sub-menu.

Manual setting
1. IP address

Specifies the IP address.

IP address
192.168.0.10

Manual setting
2. Subnet mask

Specifies the subnet mask.

Subnet mask
255.255.255.000

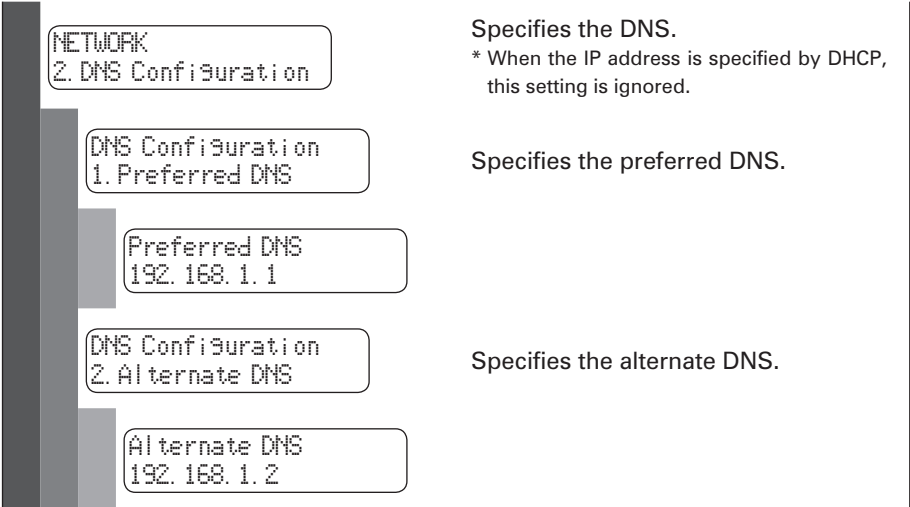
Manual setting
3. Default gateway

Specifies the default gateway.

Default gateway
192.168.0.1

IP configuration
[None ↵]

Network is not used.



* The default setting is [IP configuration DHCP].

3.SYSTEM

MENU
3. SYSTEM

SYSTEM

1. Date

Specifies the date and the time.

Date

2006/02/28 11:40

SYSTEM

2. Remocon ID

Specifies the remote control ID.

* For more information on the Remote Control ID, see "Remote Control ID setting" in the Appendix.

Remocon ID

[ID0

↕]

Sets the remote control ID to 0.

Remocon ID

[ID1

↕]

Sets the remote control ID to 1.

Remocon ID

[ID2

↕]

Sets the remote control ID to 2.

Remocon ID

[ID3

↕]

Sets the remote control ID to 3.

Remocon ID

[Disable

↕]

Disables remote control.

SYSTEM 3. LCD information	Specifies the information displayed on the LCD.
LCD information [Player status ↕]	Displays the operational status of the HDMA-4000 on the LCD.
LCD information [IP address ↕]	Displays the IP address on the LCD.
LCD information [Date ↕]	Displays the date and the time on the LCD.

* The default setting is [Remocon ID ID0], [LCD Information Player status].

Serial Control
[Network C ⚡]

Specifies network drive C as the default content drive.

Serial Control
[Network D ⚡]

Specifies network drive D as the default content drive.

5. INFORMATION

MENU

5. INFORMATION

IP=192.168.0.16

MA=00:20:11:01:00:89

Displays the IP address.

Displays the MAC address.

Sub=255.255.255.0

G/W=192.168.0.1

Displays the subnet mask.

Displays the default gateway.

DNS1=192.168.1.1

DNS2=192.168.1.2

Displays the preferred DNS.

Displays the alternate DNS.

Operating time

7 days

Displays the duration of internal HDD usage (days).

System Version

1.5.0

Displays the system version.

6. SHUT DOWN

MENU

6. SHUTDOWN

SHUTDOWN

[Power off]



Shuts down the HDMA-4000.

SHUTDOWN

[Reboot]



Restarts the HDMA-4000.

Tip

If the MENU key is pressed and a setting has not been changed, the setting will end. If some settings have been changed, the confirmation screen will be displayed, asking whether or not the changed settings should be saved. A reboot screen will be displayed for some settings.

Setup using Web browser

Accessing the HDMA-4000 Setup page

Use a computer on the same network as the HDMA-4000. Start your Web browser and then access the Setup screen (Web page) of the HDMA-4000 you want to set up. If the HDMA-4000 IP address is 192,168. 0. 16, enter as follows:
http://192. 168. 0. 16/

Preparation and starting the Web console

Required system

Operations are checked only with Internet Explorer 6 (IE6). Use a Windows XP PC on which IE6 is available.

PC settings

The PC has to be on the same network as the HDMA-4000 to configure it. The network settings of the PC also have to comply with the network environment of the HDMA-4000.

DHCP	Sets the PC to acquire an IP address automatically.
Auto IP	Sets the PC to acquire an IP address automatically. On Windows XP, if a DHCP server does not exist, an address is allocated by AutoIP.
Manual	Specify the IP address and subnet mask, based on the network environment being connected to.

Starting the Web console

To start the Web console, enter the IP address of the HDMA-4000 unit to conform to the address bar of IE6.

* The IP address of the unit can be checked by selecting [INFORMATION] in the settings menu of the front panel.

Password

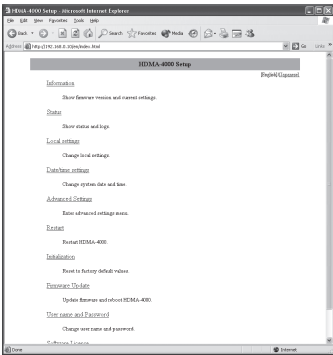
A user ID and password are required to change settings on the Web console. The default user name and password are as follows.

User name	admin
Password	None (not set)

The user name and password can be changed.

HDMA-4000 Setup Page

Running the Web console opens the following screen.

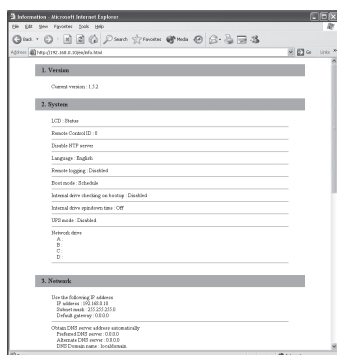


Main Screen

Information	The firmware version and settings that are currently in effect are displayed.
Status	Internal status and operation logs are displayed.
Local settings	Use this to change the local settings saved on the HDMA-4000 unit. You can also use this to check local settings; it displays values that have been saved locally.
Date/time settings	Sets the system clock of the HDMA-4000.
Advanced Settings	Use this to check the internal drive, repair errors or execute initialization.
Restart	Restarts HDMA-4000.
Initialization	Defaults the local settings to their factory state.
Firmware Update	Updates HDMA-4000 firmware.
User name and Password	Changes the user name and password required to modify settings.
Software License	Displays the license information for the software used on the HDMA-4000.

Information

Displays system information. For details of each item, see the relevant settings page.



- Version

Current version	Displays the current firmware version.
-----------------	--

- System

LCD	Displays the information shown on the LCD.
Remote Control ID	Displays the remote control ID.
Front panel operation	Enables/Disables operations from the front panel.
Remote control operation	Displays the setting status of operations from the remote controller.
Enable automated unit detection	Displays the status of automatic detection of a unit on the network.
NTP server	Displays the status of the usage/setting of an NTP server.
Language	Displays the on-screen language of the HDMA-4000.
Remote logging	Displays the output setting of remote logging.
Boot mode	Displays the operation mode at start-up.
Internal drive checking on bootup	Displays whether the internal HDD is checked at start-up.

Internal drive spindown time	Displays the spindown time of the internal HDD.
UPS mode	Displays the status of the usage/setting of UPS mode.
Network drive	Displays the setting of the network drives, when these are used.

- Network

Network mode	The current network mode. Either: Obtain an IP address automatically (DHCP); Obtain an IP address automatically (AutoIP); or, Use the following IP address.
IP address settings	Displays the current IP address settings.
Subnet mask	Displays the subnet mask address.
Default gateway	Displays the default gateway address.
DNS server settings	Displays the current DNS server settings.
Preferred DNS server	Displays the preferred DNS server address.
Alternate DNS server	Specifies the alternate DNS server address.
DNS Domain name	Displays the current DNS domain name.
Host name	Displays the host name.
Telnet	Displays the setting status of Telnet.
SSH	Displays the SSH settings.
Samba share	Displays the sharing status of the internal HDD.

- Schedule

Contents drive	Displays the default contents drive for scheduled playback.
Schedule file	Displays the schedule file name.
Initial channel	Displays the default channel name.

- Serial control

Contents drive	Displays the default content drive for serial control.
Seamless	Displays the setting status of seamless playback.
Baud rate	Displays the communication speed of the serial port.
Data bits	Displays the data bit length of the serial port.
Parity	Displays the parity setting of the serial port.
Stop bits	Displays the stop bit length of the serial port.
Flow control	Displays the status of flow control
Network serial control	Displays the status of network serial control.
Serial controls operation mode	Displays the current serial controls operation mode.
Playback delay from the start command (PL)	Displays the delay before the HDMA-4000 starts playback after a PL command has been issued.

- Playback mode setting

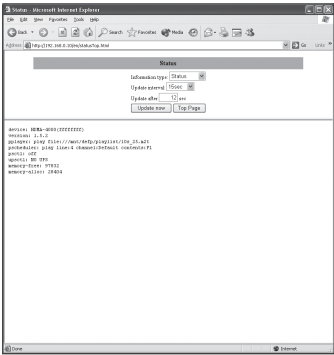
Cue up	Displays the setting status of the stopping position when a file is stopped with a command, including the SE and SL commands.
Genlock	Displays the setting status of the external sync signal. * Displays only on the HDMA-4000Sync.
Synchronization mode	Displays the current sync mode settings.

- Monitor

Display mode	Displays the monitor mode.
Monitor aspect ratio	Displays the aspect ratio.
Mode for 4:3 monitor	Displays the display method for the monitor at an aspect ratio of 4:3.

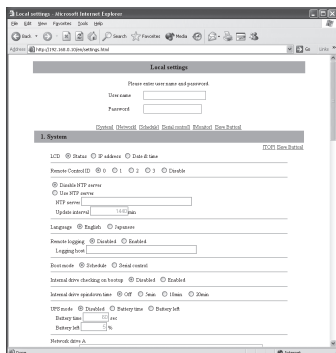
Status

The Internal status and the operation log of the HDMA-4000 are displayed.



Local settings

The local settings stored in the HDMA-4000 system can be changed on the Local settings screen. User name and the password are required to change settings.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.

- System

LCD	Specifies the information displayed on the LCD during operation.
Remote Control ID	Specifies the remote control ID to which the HDMA-4000 responds. Choose [Disable] to disable the remote control. For information on how to specify the ID of the remote control, see the Appendix to this manual.
Front panel operation	Enables/Disables operations from the front panel.
Remote control operation	Enables/Disables operations (or power off only) from the remote controller. When "power off" is disabled, shutdown with the [POWER] button on the remote controller will be unavailable.
Automated unit detection	Specify whether or not the HDMA-4000 automatically detects other units on the network. When this is [Enabled], network traffic will increase because packets are regularly transmitted over the network. Automated detection is performed by SSDP.

NTP server	Enables/Disables time correction utilizing the NTP server. When [Use NTP server] is checked, specify the NTP server (server name or IP address) to be used, and the intervals at which to apply time corrections.
Language	Specifies the language to display on the HDMA-4000.
Remote logging	Enables/Disables remote logging. When enabled, specify the logging host (host name or IP address).
Boot mode	Choose the boot mode of the HDMA-4000 from the Schedule or Serial control. Once the HDMA-4000 has started, the operation mode can be changed with the command ("argPO") from a serial control device.
Internal drive checking on bootup	Disables/Enables internal drive checking at start-up of the HDMA-4000. When enabled, it may take additional time before the HDMA-4000 starts up.
Internal drive spindown time	Specifies the time duration before stopping the internal HDD when it has not been accessed. (Once the HDD has been stopped, it may take some time to start the next playback.)
UPS mode	Specifies the operation mode (operating duration after power has been lost, or operating duration based on the remaining battery) while the OMRON uninterruptible power supply system (BX30F/BX50F) is being used. When [Battery time] or [Battery left] is selected, the HDMA-4000 is shutdown, based on the specified value. When power is supplied to several HDMA-4000 units from a UPS system, with the group name specified, the HDMA-4000 units will be shut down, based on the status of the power supply. (Because a network is being used, a HUB has to be connected to the UPS system.
Network drive	Specifies the network name (E.g.: \\hdma-svr\data1), user name, and password for the network drive.

- Network

IP address settings	Specifies the method for acquiring an IP address and makes other detailed settings. When [Use the following IP address] is checked, [IP address], [Subnet mask], and [Default gateway] become available to specify.
DNS server	Specifies the method for acquiring a DNS server and makes other detailed settings. If [Use the following IP address] is selected in [IP address], [Use the following DNS server address] is automatically selected.
Host name	Specifies the host name.
Telnet	Enables/Disables the Telnet function.
SSH	Enables/Disables SSH.
Samba share	Specifies the sharing status of the internal HDD of the HDMA-4000. Choose [Read only] or [Read write] to view the [Schedule contents] or [Serial control contents] directly.

- Schedule

Contents drive	Specifies the drive where the default contents of the scheduled playback are stored. Options are: the internal drive, connected USB drive or network drive A-D.
Schedule file	Specifies the name of the schedule file. "Schedule.txt" is set at the time of factory shipping.
Initial channel	Specifies the default channel name. If not specified, the first channel defined in the schedule will be used.

- Serial control

Contents drive	Specifies the default content drive for serial control.
Seamless	Enables/Disables seamless playback in serial control mode.
Baud rate	Specifies the communication speed of the serial port.
Data bits	Specifies the data bit length.
Parity	Specifies the parity (technique for detecting data errors).
Stop bits	Specifies the stop bit length.
Flow control	Specifies the communication speed of the serial port.

Network serial control	Enables/Disables network serial control. When enabled, specify the [standby port number]. When network serial control is enabled, operational commands are available via the network as well as via serial control.
Serial controls operation mode	Selects the command mode of the serial controls. To enable sync playback, select [Pioneer LD/DVD].
Playback delay from the start command (PL)	Specifies the delay before the HDMA-4000 starts playback after a PL command has been issued.

- Playback mode setting

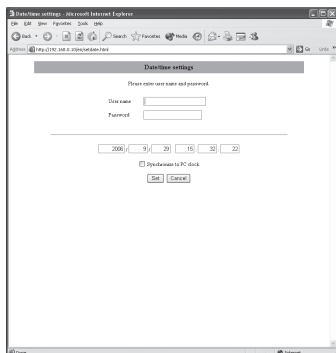
Cue up	Specifies the stopping position when a file is stopped with a command including the SE and SL commands.
Genlock	Enables/Disables playback timing in sync with an external signal. * Displays only on the HDMA-4000Sync.
Synchronization mode	Specifies the sync mode. To operate multiple HDMA-4000 units in sync, set one unit to [Sync master] and the others to [Sync slave].

- Monitor

Display mode	Specifies the output mode to the TV monitor.
Monitor aspect ratio	Specifies the monitor aspect ratio according to the monitor to be used.
Mode for 4:3 monitor	Specifies the display style on a 4:3 monitor.

Date/time settings

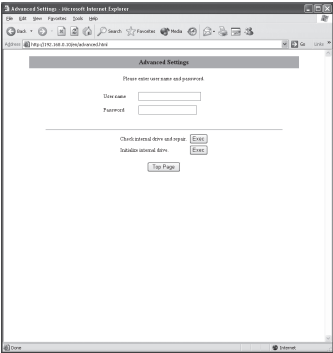
Specifies the date and the time. User name and the password are required to change settings.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.
Year/Month/Date/ Hour/Minute/ Second	Sets the system clock of the HDMA-4000.
Synchronize to PC clock	Check this item to synchronize it to the PCs internal clock. When checked, the current time of the PCs internal clock is displayed.

Advanced Settings

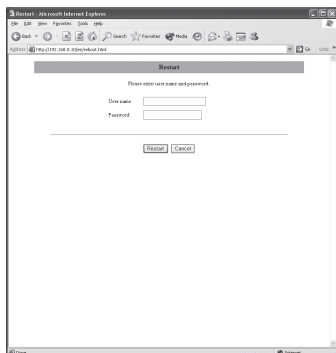
Specifies the settings on the internal drive. A user name and password are required to change these settings.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.
Check internal drive and repair.	Checks the internal drive of the HDMA-4000, and fixes errors, if any are found.
Initialize internal drive.	Initializes the internal drive of the HDMA-4000. When initialized, all existing data will be lost.

Restart

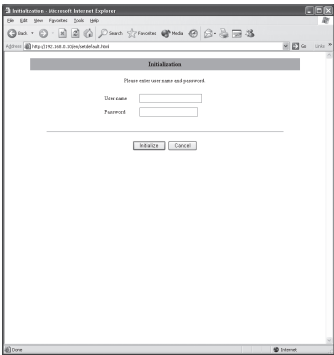
Restarts the system. A user name and the password are required to restart the system.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.

Initialization

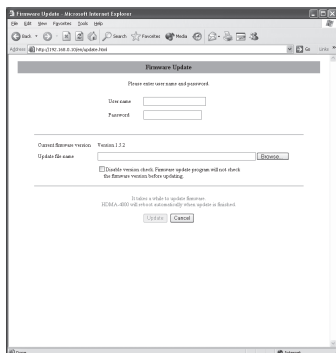
Resets the system to the default factory state. A user name and the password are required to change these settings.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.

Firmware Update

Updates the HDMA-4000 firmware. A user name and the password are required to update the firmware.



User name	Enter your user name. The default user name is [admin].
Password	Enter your password. No password is set in the default setting.
Current firmware version	Displays the current firmware version.
Update file name	Specifies the path where the update file exists. Click [Browse] to select the update file.
Disable version check.	Firmware update program will not check the firmware version before updating.

User name and Password

Changes the user name and password required to modify settings. User name and the password are required to change settings.

User name	Enter the current user name.
Password	Enter the current password.
New User name	Enter the new user name to register.
New Password	Enter the new password to register.
Confirm New Password	Re-enter the new password to register.

Updating firmware

How to update

Firmware update using a Web browser

- (1) Copy the firmware archive file to a PC accessible by the HDMA-4000.
- (2) Use a Web browser to access the HDMA-4000 Setup page.
- (3) Select [Firmware update] and start the update.
- (4) Once the update completes, the HDMA-4000 will automatically restart.

Firmware update via network or USB

- (1) Copy the firmware archive file and the firmware update control file to a USB device or to the content update folder.
* For more information on the control file, see: "Descriptions of content update control file," in Reference 1.
- (2) Once the update completes, the HDMA-4000 will restart automatically.

Possible reasons for failed updates:

- The file is invalid.
- The version has already been applied.

Note

Please do not play content or perform remote controller operations while the firmware update is in progress.
Please do not turn off the HDMA-4000 while the firmware update is in progress.

Maintenance Mode

Maintenance Mode overview

HDMA-4000 Maintenance Mode is the recovery program that is used when the firmware update, as described in the previous section “Updating firmware,” has failed and HDMA-4000 no longer functions. It is also used when you forget the user name and password that you have set in the [User name and Password] screen. Firmware updates, in this case, are performed in a special Maintenance Mode with a firmware binary file rather than an archive file.

Connections and Settings

- (1) Use a serial cross cable to connect the HDMA-4000 to a computer featuring a RS-232C port.
- (2) Start a terminal communication program on the computer.

The communication parameters to use are as follows:

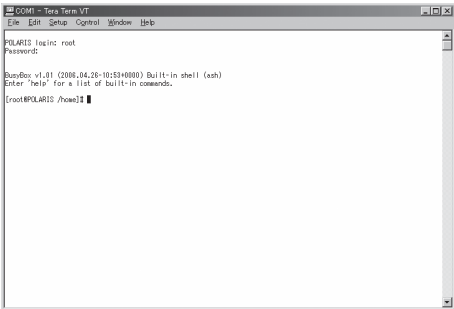
Baud rate:	115200bps
Data bit:	8 bit
Stop bits:	1
Parity:	None
Flow control:	None

Note

While in Maintenance Mode, do not perform operations other than the ones described in this section. Doing so may disable any further firmware update operations.

Starting HDMA-4000 in Maintenance Mode

With the power connected, press and hold down the reset switch. After a few seconds, [Maintenance Mode] will be displayed on the HDMA-4000 LCD. After a few seconds from the time [Maintenance mode] is displayed, [POLARIS login:] will be displayed on the terminal program's screen.



(1) Then enter as follows:

POLARIS login: root
Password: polaris

* Nothing is displayed on the screen even when you are entering the password.

(2) The following text appears on the terminal program's screen:

Busybox v1.01(2006.04.26-10:53+0000)Built-in shell(ash)
Enter 'help' for a list of built-in commands.

[root@polaris /home]#

* If the user name or the password is invalid, the screen shown in STEP 1 will reappear.

Firmware recovery

IP address settings

When DHCP is unavailable, specify the IP address.

* In this example, IP address is set to 192. 168. 0. 16.

* If DHCP is available, the IP address will be allocated by DHCP.

- (1) To set the IP address, enter the following:

```
[root@polaris /home]# ifconfig eth0 192.168.0.16
```

- (2) To review the IP address, enter the following:

```
[root@polaris /home]# ifconfig
```

Firmware download

Download the firmware, via a Web server, an FTP server or a USB device: to be used in Maintenance Mode.

In this example, 192. 168. 0. 2 is the FTP server address where the firmware archive file is stored.

- (1) To specify the address from which to download the firmware, enter the following:

```
[root@polaris /home]# cd /tmp
[root@polaris /tmp]# wget ftp://192.168.0.2/maintenance.tgz
```

To update the firmware from a firmware archive file stored on a USB device, enter the following:

```
[root@polaris /home]# cd /tmp
[root@polaris /tmp]# mount -t vfat /dev/sda1 /mnt
[root@polaris /tmp]# cp /mnt/maintenance.tgz .
```

Firmware recovery

Recovers the firmware.

- (1) To recover the firmware, enter the following:

```
[root@polaris /tmp]# tar zxvf maintenance.tgz  
[root@polaris /tmp]# ./up
```

* Do not perform any operations until [root@POLARIS /tmp]# is displayed again.

Restart HDMA-4000

Restarts HDMA-4000.

- (1) To restart HDMA-4000, enter the following:

```
[root@polaris /tmp]# reboot
```

Firmware Update

Re-update the firmware using the standard method.

If you have forgotten the user name or the password

If you have forgotten the user name or the password, you can initialize the HDMA-4000. Once the HDMA-4000 is initialized, the user name will be [admin] with no password set. Once the HDMA-4000 is initialized, start it up in the normal operation mode.

- (1) To initialize the HDMA-4000, enter the following:

```
[root@polaris /home]# setdef
```



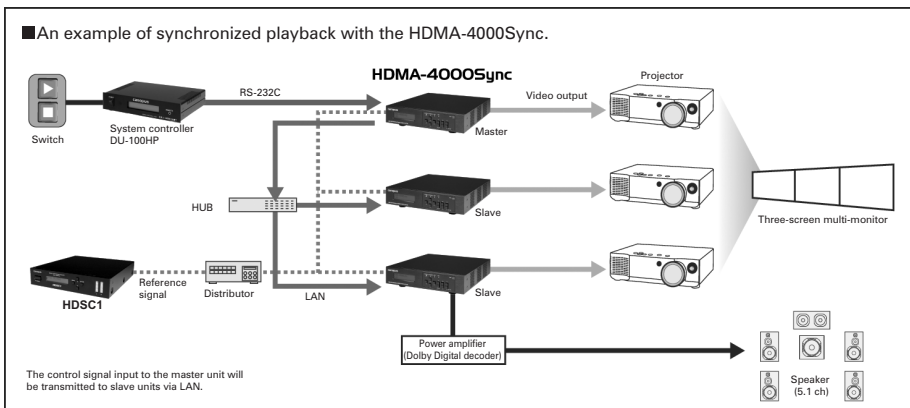

Reference 5

- Sync playback using the HDMA-4000Sync

Sync playback using the HDMA-4000Sync

By executing sync playback using multiple HDMA-4000Sync units, playback on a giant screen, which consists of multiple monitors, or 3D video where videos for the right and left eyes are played in sync, will be available. The following diagram shows an example of sync playback, using three HDMA-4000Sync units.

Connecting devices



Note 1: Set one of the three HDMA-4000Sync units as the master and the others as slaves.

* For instructions on how to set master and slave modes, see: "HDMA-4000Sync settings," on the next page.

Note 2: Connect three HDMA-4000Sync units to a HUB with LAN cables.

Note 3: Connect the master to a serial controller with an RS-232C cable.

Note 4: Connect one PC to the HUB.

* This PC is used to display a Web browser to set up units. It is not necessary to keep it connected once setting up has been completed.

Note 5: Connect external reference signal cables to the 3 HDMA-4000Sync units for synchronization.

* The output signal from the HDSC1, Grass Valley converter, is recommended as an external reference signal.

For details, see the section entitled "External sync input" in the HDMA-4000Sync table in the Appendix.

Note

Before turning the HDMA-4000Sync on, input the reference signal properly. External sync will not be done properly if the input of the reference signal stops or the settings of the reference signal are changed during operation.

Note

All the HDMA-4000Sync units being used for sync playback must be connected through a single HUB. If the HDMA-4000Sync units are connected to a HUB in a cascading manner, synchronization may be faulty.

HDMA-4000Sync settings

* To simplify this explanation, consider that an IP address has been specified for all three HDMA-4000Sync units and the PC, and that the setup screen is available via a Web browser. (For instructions on how to specify an IP address for HDMA-4000Sync units, see Reference 4.)

Setup via a Web browser

Set up the three HDMA-4000Sync units as follows, using a Web browser.
(For items displayed in the Web browser, see Reference 4.)

* Items not described below will be set to their default values.

1	Open the HDMA-4000 Setup page, Local settings page and select [1. System settings]→[Boot mode] and [Serial controls].
2	Select [2. Network settings] and enter the [Host name]. * In this example, the host name of the master unit is [host1] and the host names of the slave units are [host2] and [host3] respectively.
3	Select [4. Serial control settings]→[Content drive] and [Internal drive]. Then select [Serial control operation mode], [Pioneer LD/DVD].
4	Select [5. Playback mode settings]→[External sync operation], [Enable]. In the [Multiple units sync mode], select [Master] for the master unit and [Sync slave] for the slave unit. Leave [Playback start packet multicast address] and [Playback start packet port] at default values and click the [Settings] button.

Sync unit list

Place a [psctl.conf] file in the [serial] folder on the master unit, containing a list of HDMA-4000Sync units to synchronize. In this example, use the host names that were used in the previous section and edit the file as follows:

```
[Pioneer]
SYNC=host 1
SYNC=host 2
SYNC=host 3
```

- * If the [psctl.conf] is also used for settings other than specifying the sync units list, place a [psctl.conf] file with the same contents in the [serial] folders on the slave units.
- * For settings other than the list of sync units in the psctl.conf file, see the section entitled: "Changing serial control settings and the sync unit list" in Reference 3.

Contents

The playback contents must be placed in the [serial] folders of all three HDMA-4000Sync units.

- * To use the "FR" command, setting files named "ContentFrame.idx," which describe the same frame constructions, are required on all three HDMA-4000Sync units. To use the "TM" command, similar setting files named "ContentTime.idx" are required on all three HDMA-4000Sync units.
- * For more information on the "ContentFrame.idx" and "ContentTime.idx" files, see the section entitled "Controls by frame or time" in Reference 3.
- * If the "psctl.conf" file is changed, reboot the HDMA-4000 unit to update the settings.

Note

The contents stored in the three units do not have to be exactly the same, but the following must be the same: titles, chapters, length of contents, and selectable by commands.

Playback

Plays contents using a serial controller connected to the master unit.

Available Combination of HDMA-4000Sync units for external sync

Reference signal Display mode	1080/59.94i	1080/50i	720/59.94p	720/50p	NTSC (J/US)	PAL
1080/59.94i	○	×	×	×	○	×
1080/50i	×	○	×	×	×	○
720/59.94p	○	×	○	×	○	×
720/50p	×	○	×	○	×	○
1080/59.94i(DVI)	○	×	×	×	○	×
1080/50i(DVI)	×	○	×	×	×	○
720/59.94p(DVI)	○	×	○	×	○	×
720/50p(DVI)	×	○	×	○	×	○
NTSC(J/US)	○	×	×	×	○	×
PAL	×	○	×	×	×	○

Sync playback using the HDMA-4000Sync



Appendix

Hardware Specifications

HDMA-4000

Network interface		
Format	100Base-TX, 1000Base-T Ethernet/IEEE802.3 frame format Auto negotiation supported Full-duplex supported	
Connector	RJ45 modular jack x1	
Video output		
480/59.94i (NTSC) 576/50i (PAL)	SD signal	
	Connector	Composite output connector x1 Component output BNC connector x3 Y/C output S connector x1 (Matched load impedance: 75 Ohm)
1080/59.94i 1080/50i 720/59.94p 720/50p	HD signal	
	Connector	Component output BNC connector x3 (Matched load impedance: 75 Ohm)
1080/59.94i (DVI) 1080/50i (DVI) 720/59.94p (DVI) 720/50p (DVI)	Digital signal	
	Connector	DVI-D connector x1
Audio output		
Analog audio output	Format	Stereo line output (unbalanced)
	Connector	Left channel pin-jack x1 (white) Right channel pin-jack x1 (red)
	Max. output level	2Vrms @RL=10k Ohm
	Load impedance	10k Ohm or higher recommended
Digital audio output	Format	S/PDIF coaxial
	Connector	Pin-jack x1 (black)
	Output level	0.5V @RL=75 Ohm
	Load impedance	75 Ohm

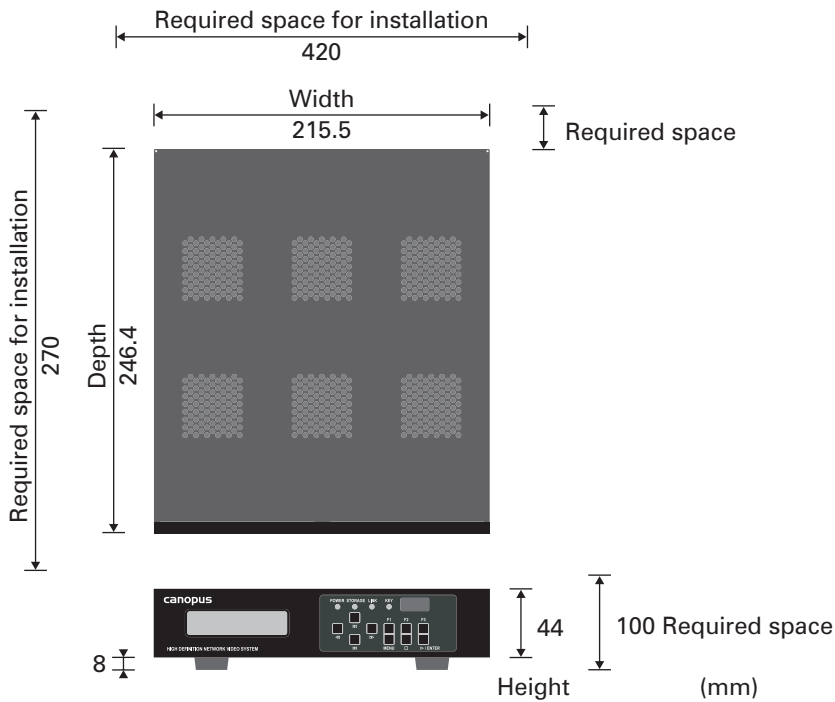
Remote control		
Infrared wireless remote control	Wireless remote controller	Infrared receiver x1
Wired remote control	Remote control terminal	Mini-jack for remote control x1 Switched automatically by inserting plug (Exclusive use with Infrared wireless remote control)
Generic I/O		
Serial port	Format	EIA-232
	Connector	D-SUB 9 pin (male) x1
USB port	Format	USB 2.0
	Connector	USB type A x1
Specification		
Voltage	AC adapter	Input: AC 100V - 240V (50Hz/60Hz)
		Output: DC 12V 3A (max)
	Unit	Input: DC 12V 2.9A (max)
Temperature condition	Operating temperature	5 - 40 degrees C
Others		
Dimensions	W 215.5 x D 246.4 x H 44 mm (Projecting parts not included)	
Weight	2kg approximately	

HDMA-4000Sync

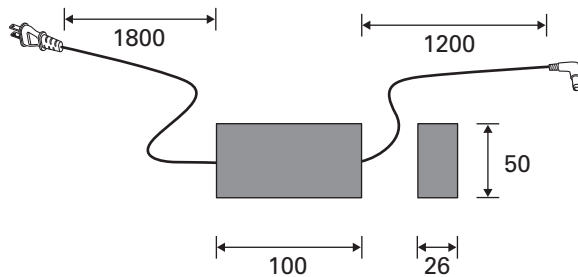
Network interface		
Format	100Base-TX, 1000Base-T Ethernet/IEEE802.3 frame format Auto negotiation supported Full-duplex supported	
Connector	RJ45 modular jack x1	
Video output		
480/59.94i (NTSC) 576/50i (PAL)	SD signal	
	Connector	Composite output connector x1 Component output BNC connector x3 Y/C output S connector x1 (Matched load impedance: 75 Ohm)
1080/59.94i 1080/50i 720/59.94p 720/50p	HD signal	
	Connector	Component output BNC connector x3 (Matched load impedance: 75 Ohm)
1080/59.94i (DVI) 1080/50i (DVI) 720/59.94p (DVI) 720/50p (DVI)	Digital signal *Phases during the sync operation are not locked.	
	Connector	DVI-D connector x1
Audio output		
Analog audio output	Format	Stereo line output (unbalanced)
	Connector	Left channel pin-jack x1 (white) Right channel pin-jack x1 (red)
	Max. output level	2Vrms @RL= 10k Ohm
	Load impedance	10k Ohm or higher recommended
Digital audio output	Format	S/PDIF coaxial
	Connector	Pin-jack x1 (black)
	Output level	0.5V @RL= 75 Ohm
	Load impedance	75 Ohm
External sync input		
Format * Not synchronized when the output format and frame rate are different.	Black Burst	NTSC(59.94i)PAL(50i)
	3 value Sync	1080/59.94i, 1080/50i, 720/59.94p, 720/50p
Connector		BNC connector × 1
Lock range		± 30ppm

Remote control		
Infrared wireless remote control	Wireless remote controller	Infrared receiver x1
Wired remote control	Remote control terminal	Mini-jack for remote control x1 Switched automatically by inserting plug (Exclusive use with Infrared wireless remote control)
Generic I/O		
Serial port	Format	EIA-232
	Connector	D-SUB 9 pin (male) x1
USB port	Format	USB 2.0
	Connector	USB type A x1
Storage		
Installed device	2.5 inch, 80 GB	
Recording time	Approximately 6 hours for HD content (25Mbps)	
Suggested time for HDD replacement	While the lifespan of an HDD varies according to its usage environment, HDDs are devices that deteriorate over time. When used in an environment with an ambient temperature of 25 degrees C, problems, such as writing errors, may occur within the first 20,000 hours of use. Running the HDD for more than 30,000 hours will degrade the head or motor, causing the HDD to fail. Considering the purpose of this device, the recommended replacement time for HDDs is after about 8,000 hours of use. (Please note that these time values are rough indications. They do not guarantee HDD durability.)	
Specification		
Voltage	AC adapter	Input: AC 100V - 240V (50Hz/60Hz)
		Output: DC 12V 3A (max)
	Unit	Input: DC 12V 2.9A (max)
Temperature condition	Operating temperature	5 - 40 degrees C
Others		
Dimensions	W 215.5 x D 246.4 x H 44 mm (Projecting parts not included)	
Weight	2kg approximately	
Fan	4cm×1	

HDMA-4000/HDMA-4000Sync unit



AC adapter



Remote Control ID setting

You can assign the remote control ID numbers (0 to 3) to your remote controller. The DIP switches can be found under the battery lid of the remote controller.

ON		Available to change by the button operations. (Factory default: All switches are off.)
OFF		
ON		ID fixed to 0 (Set only SW1 to ON)
OFF		
ON		ID fixed to 1 (Set only SW2 to ON)
OFF		
ON		ID fixed to 2 (Set only SW3 to ON)
OFF		
ON		ID fixed to 3 (Set only SW4 to ON)
OFF		

To assign the ID number, use the numeric buttons (0 to 3) and the button. The default remote control ID is set to 0. In this example, the procedure to assign the remote control ID to 2 is explained.



- (1) With on the remote controller held down, press the button for longer than a second.

Note

No signal, such as sound or message, appears when the ID number is changed.

Connecting to a UPS

1. Supported UPS

OMRON BX35F/BX50F

2. Operations

Run a Web browser, select [Local settings]→[UPS mode] and [Battery running time] or [Remaining battery], then the UPS unit will shut down within one minute of the HDMA-4000/HDMA-4000Sync shutting down.

3. Other

Proper operation is not guaranteed when the unit is connected via a USB-HUB.